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NEWSLETTER

INCAI

INClusive **A**rtificial **I**ntelligence

Artificial Intelligence (AI) can be defined as a system that has been designed to interact with the world in ways we think of as human and intelligent. Ample data, cheap computing and AI algorithms mean technology can learn very quickly. Children are already using technology based on AI.

UNESCO (2019) says AI has the potential to accelerate the process of achieving the global education goals through reducing barriers to accessing learning, automating management processes, and optimizing methods to improve learning outcomes. Education will be profoundly transformed by AI. Teaching tools, ways of learning, access to knowledge, and teacher training will be revolutionized.[AD1]

For this reason, ACP has turned its attention and interest the last 2 years to AI, and how AI can assist disadvantaged people, trainers, educators, and students in the process of learning at all stages. For this case, we worked on two different projects.

The first one is called AI@school. AI for Education focuses on AI applications that can be used to improve education and thus learning and teaching. Potential is seen in the areas of personalisation of learning, automation of domain-specific knowledge, tackling learning difficulties and automation of assessments. For both teachers are in the focus of attention, because they must be trained to be able to use AI in educational institutions.
The main objectives of the project are to develop and deliver:
- A curriculum and toolkit for teachers with a set of activities, teacher guides, assessments, materials, and resources to assist teachers in teaching about artificial intelligence;
- A teacher training course to increase AI awareness both for face-to-face delivery and as a MOOC Learning Scenarios for teaching with AI in schools;
- A selection and analysis of best practice exemplars across the world and a directory of Open Source.

The second project has the name TACCLE AI and it is mainly address to VET teachers and trainers. There are many possible uses of AI including new opportunities for adapting learning content based on student's needs, new processes for assessment, analysing possible bottlenecks in learners' domain understanding and improvement in guidance for learners.

AI systems can provide diagnostic data to learners so that they can reflect on their metacognitive approaches and areas in need of development. New pedagogical possibilities include learning companions based on affective computing and emotion AI. AI systems can help in interpreting activities undertaken in VET, linking theoretical and practice-based learning.
Virtual teaching assistants can relieve teachers and trainers from the routine automatable parts of their job, enabling them to focus on human communication, scaffolding, and support for students.

THE PROJECT

INCAI (INClusive Artificial Intelligence) is a two-year Erasmus Plus Strategic partnership sharing of good practice project in the field of Adult education. The partnership is made up of 8 partners from 8 European countries (UK, Lithuania, Spain, Greece, Ireland, Sweden, Poland and Italy) from Community and Adult Education, HE, Technical and business sectors.

https://www.incaiproject.com/

The project Started in December 2020 but the Pandemic delayed our project, we finally started to move in September 2021. Our first face to face meeting was held in Liverpool, UK, hosted by Merseyside Expanding Horizons, in September 2021. We started to explore the use of Artificial Intelligence and its use in education, in particular how it could be used to make learning more Inclusive. During the meeting, we also visited Red Ninja, a design-led technology company, grown in Liverpool and working across the world. Who believe in the power of design and collaboration to make a difference.

http://www.redninja.co.uk/

We also visited the World Museum in Liverpool where we experienced the' More Than Human' exhibition. Explored through prominent and cutting-edge research projects, and special commissions and projects by international artists, 'AI: More than Human' is an unprecedented survey of the relationship between humans and technology. The exhibition tells the rapidly developing story of AI, from its extraordinary ancient roots in Japanese Shintoism, to Ada Lovelace and Charles Babbage's early experiments in computing, through to the major developmental leaps from the 1940s to the present day.

https://www.liverpoolmuseums.org.uk/whatson/world-museum/exhibition/ai-more-human

The Exhibition was curated and organised by Barbican International Enterprises and co-produced by Forum Groningen, Netherlands. These visits gave us Inspiration and helped us start our journey into the world of Inclusive Artificial Intelligence.

TPM KAUNAS

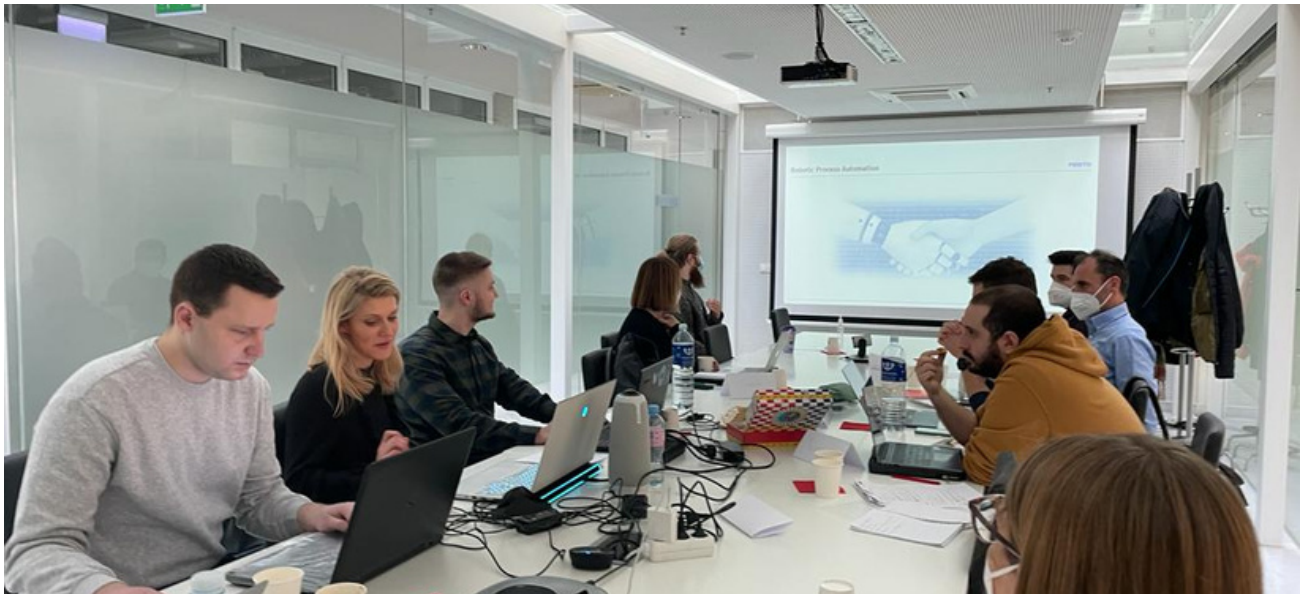
Kaunas, Lithuania, February 2022

The Second Transnational Partnership meeting of the INCAI project was held in Kaunas, Lithuania in February 2022. It was Hosted by Kaunas Technical University and the theme was an introduction to wireframes, we discussed different types of wireframes and looked at several online tools. At the meeting we also had the chance to visit the AI department at the university and try out some of the educational games and learning tolls they are developing.

In addition we talked about the work of AI department and three of the students presented their theses.

https://en.ktu.edu/

We came away from the meeting with some great ideas on the use of AI in education and a better understanding of wireframes.



LTTA ALICANTE

Alicante, Spain, 25th-29th April 2022

Very rarely do people with intellectual disabilities manage to reach the labour market successfully. This is largely due to the existing educational barriers for people with intellectual disabilities to access VET education and acquiring job skills to integrate in the labour market. Only a low percentage of young people with intellectual disabilities have access to educational paths such as vocational training, and even less to university studies. This is reflected in the low rates of employability of this group.

To ensure the incorporation of people with intellectual disabilities into the non-mandatory educational system, it is necessary to transform the current educational model towards one that is much more focused on individual-pathed learning, adapted to the needs and rhythms of each person. It must also be a multidisciplinary education, based on values, knowing the usefulness of what has been learned and focused on the student. This can become a reality if our societies seize the opportunity offered by the process of digitizing education; putting technological innovations at the service of people, especially those most vulnerable and with the greatest support needs.

This is why the INCAI project consortium is convinced that Artificial Intelligence can play a very important role in the creation of these new educational methods. Artificial Intelligence can have the capacity, in the field of training, to create automated educational paths adapted to the rhythms and needs of each person in this group; increasing the chances of success in the training of people with intellectual disabilities.

During the training activity organised in Spain we had the opportunity to visit the Occupational Center of APADIS Organisation, focused on promoting the employability of people with intellectual disabilities through collaboration with manufacturing companies in the inland region of the province of Alicante, Spain. In this visit, it was explained to us that people with intellectual disabilities have the capacities to participate in the labour market, but that a greater dedication is necessary for the training and learning of the tasks to be carried out in each specific job.

This need for a greater specific dedication to each of the people with intellectual disabilities can hardly be covered by the centre's own training staff, as the number of trainees for each trainer is very high; and it would require an investment beyond the reach of this type of centres to reduce the ratio to the ideal situation of one trainer for every two or three students.

With Artificial Intelligence, virtual support systems could be created, which would provide continuous support to people with intellectual disabilities in the task of learning a trade, through the resolution of doubts and the automatic learning of AI based on their questions, their mistakes and also their successes.

This technology of accompaniment and resolution of doubts and problematic situations would be able to cover, at least in part, the need for specific training adapted to the characteristics and needs of each student, especially in the group of people with intellectual disabilities.

From the INCAI consortium we will continue working to detect AI-based solutions that meet the needs of this group with regard to their training and employability.

INCAI

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merseyside EXPANDING HORIZONS

aiju Technological Institute for children's products & leisure

CEIPES Centro Internazionale per la Promozione dell'Educazione e lo Sviluppo

I&F Instruction&Formation Learning for Living

Συνεργασία Ενεργών Πολιτών

ktu kaunas university of technology 1922

VALUE HUB Enabling Transformation Capacity

ORANGE HILL