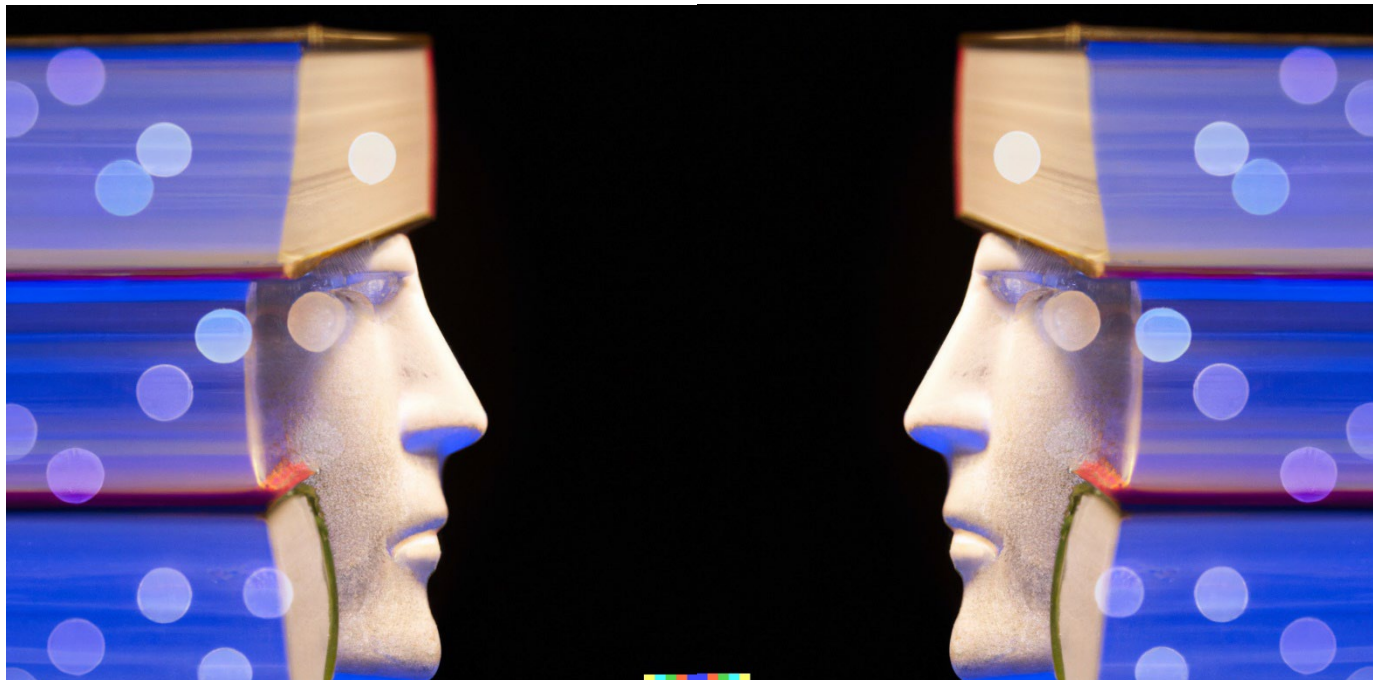




INClusive Artificial Intelligence

NEWSLETTER 6





AI for Inclusive and Flexible Adult Education

A summary of the INCAI Project.

The INCAI project was a two and a half-year initiative funded by Erasmus+ that explored how artificial intelligence (AI) technology can support diverse learners and enhance adult education. The project involved eight partners from eight European countries and ran from December 2020 to August 2023.

The project aimed to:

- Identify the needs and preferences of adult learners from different backgrounds and learning difficulties or disabilities and how AI technology can address them.
- Develop a guide for adult educators and AI specialists to co-produce a wireframe plan for a piece of AI technology that would meet the specific needs of a target group of disadvantaged learners.
- Create eight examples of wireframe plans for different types of AI technology, such as chatbots, voice assistants, adaptive learning systems, etc., co-produced by the project partners, the AI specialists and the target groups.
- Disseminate the project results and outcomes to relevant stakeholders, such as adult education providers, AI trainers, policymakers, etc.

The project produced the following outputs:

- A guide to Wireframing for adult educators and trainers that provides step-by-step instructions, tips, examples, templates, resources, etc., to co-produce a wireframe plan for a piece of AI technology that meets the specific needs of a target group of disadvantaged learners..
- We worked with our partners, the AI experts, and groups of learners to make eight examples of plans for different kinds of AI tools. These plans showed how we can tailor different types of AI technology to suit different learner groups' specific needs and preferences. They also showed how these AI technologies can give learners personalised feedback, guidance, and support.
- A sustainability strategy and plan that outlines the project partners' actions to use the project results and outcomes to relevant stakeholders through various channels, such as social media, newsletters, webinars, workshops, conferences, seminars, project fairs, etc.
- A published research paper "The Scenarios of Artificial Intelligence and Wireframes Implementation in Engineering Education"
- A project website with all the project information, outputs, resources newsletters etc.

The INCAI project was a valuable experience for all the partners involved and provided useful insights and recommendations for future projects on AI technology for adult education. You can find more information about the project on its website: [Home | INCAI \(incaiproject.com\)](https://incaiproject.com)



Empowering Education: The Role of Inclusive AI

In the ever-evolving landscape of education, the integration of Artificial Intelligence (AI) has emerged as a transformative force, offering countless possibilities for enhancing learning experiences. However, to truly harness the potential of AI in education, these technologies must be designed with inclusivity at their core.

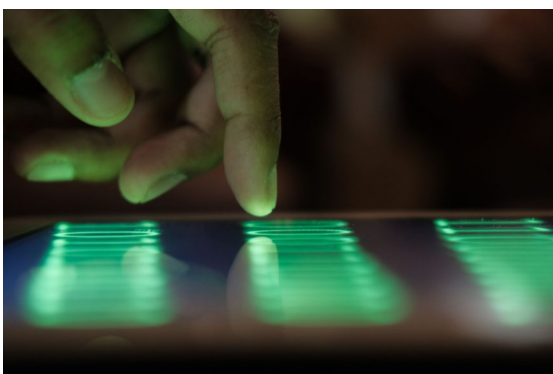


Breaking Down Barriers

Inclusive AI in education aims to break down barriers that hinder access to learning for all individuals, regardless of their abilities, backgrounds, or circumstances. It strives to create an educational ecosystem where every student can thrive, unleashing their full potential.

Customised Learning Paths

One of the most striking benefits of inclusive AI in education is its ability to create personalised learning paths. AI-powered algorithms analyse students' strengths, weaknesses, and learning pace to deliver tailor-made content. Personalised learning paths ensure that students receive the support they need to grasp concepts and progress at their own speed rather than being tied to a one-size-fits-all curriculum.



Accessible Content

Inclusivity also extends to making learning materials accessible to students with disabilities. AI can automatically generate closed captions, provide text-to-speech options, and even offer tactile graphics for visually impaired students. Doing so ensures that nobody is left behind in the learning process.

Diverse Learning Styles

Students have diverse learning styles, and inclusive AI adapts to them. Whether a student learns best through visual aids, auditory explanations, or hands-on experiences, AI can provide various resources to accommodate these preferences. This fosters a more engaging and effective learning environment.



Supporting Teachers

Inclusive AI doesn't replace teachers but empowers them. It helps educators identify struggling students early on, enabling timely interventions. AI can also automate administrative tasks, freeing up valuable time for teachers to focus on teaching and mentoring.



Addressing Bias and Ethical Concerns

While AI holds immense potential, it also poses ethical challenges. Inclusive AI must be vigilant in avoiding bias and discrimination. Developers must ensure that AI algorithms do not perpetuate existing prejudices and that they consider diverse perspectives and voices in the design process.

The Road Ahead

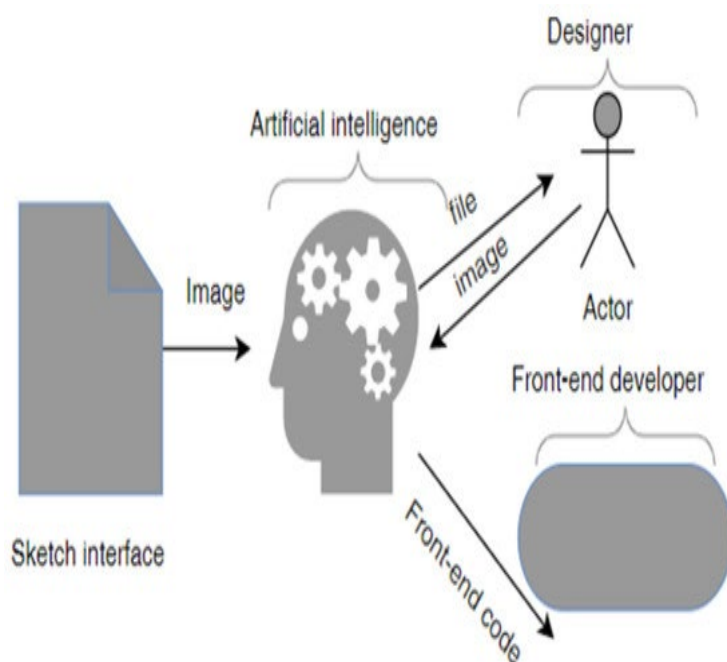


The journey towards truly inclusive AI in education is ongoing. It requires collaboration between educators, technologists, policymakers, and communities to ensure that AI catalyses positive change in education.

As we look to the future, inclusive AI has the potential to revolutionise education, making it accessible, engaging, and effective for learners of all backgrounds and abilities. By embracing this technology and championing inclusivity, we can pave the way for a brighter, more equitable educational landscape where no one is left behind in the pursuit of knowledge.

The INCAI wireframes

In our project, we wanted to find out how AI can help different learners and teachers in adult education. AI is when computers can do things like humans, such as talk, listen, see, learn, etc. We worked with different groups of people who have problems with learning and asked them what they need and want from AI. We also worked with AI experts who helped us plan for different kinds of AI to help these groups of people.



We also discovered that many people don't know much about AI or are afraid of it. So, we thought AI tools that teach the basics of AI would be helpful. These tools would help people learn what AI is, what it can and can't do, etc., and make them more comfortable using it. We developed eight examples of wireframes for different kinds of AI tools. These wireframes show how to use AI to make learning more inclusive. Here are some of AI tools we developed wireframes for to help different learners and teachers:

Personalised Learning.

AI can determine what each learner needs and wants from learning and give them the right content. This way, they can learn what they need to know and go as fast or slow as they want.

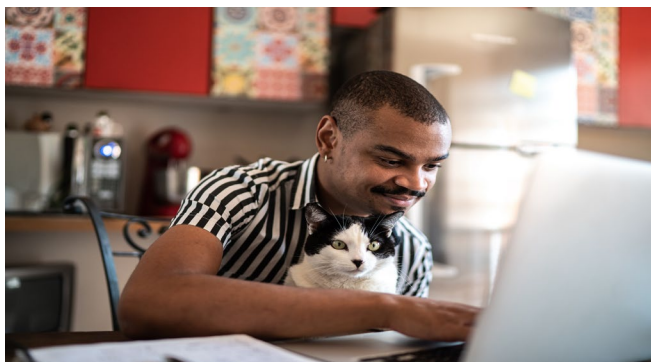
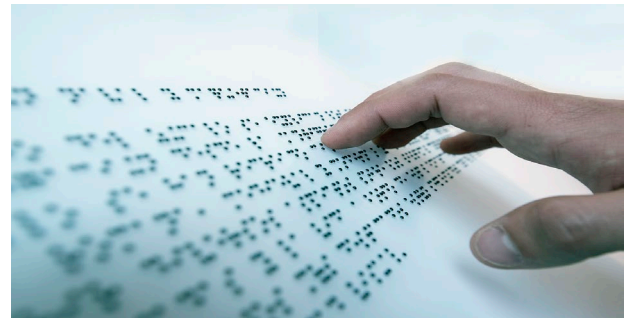


Language Support

We can use AI to translate the learning materials into different languages. This way, we can help learners who speak different languages or have language-related challenges.

Accessibility

We can use AI to make the learning materials work for learners with disabilities. For example, we can use AI to add captions for videos, read text aloud, and create graphics that learners can touch and feel if they cannot see well



Support

We can use AI to help learners who need more support. We can use AI to determine which learners need more help and how to help them. We can also use AI to offer social and emotional support to learners who feel stressed or lonely.

To read more about the wireframes and see the full list of AI tools, please visit our website: [Home | INCAI \(incaiproject.com\)](https://incaiproject.com)



Sustainability: What next for the INCAI project?

How can we keep our project going after the funding ends?

Our project has been a great success, but it doesn't have to end here. We can still use our project's results to make a difference in adult education. Here are some of the things we can do to keep our project going after the funding ends:

- We can ensure that our project and its results are sustainable and can continue helping different learners and teachers. We can maintain and update our website, newsletters, and training modules and share them with other adult education providers and AI specialists.
- We can offer helpful advice and tips for using AI and data in teaching and learning fairly and ethically. We can do this by using our project report's findings, which analysed AI's benefits and challenges for diverse learners and educators.
- We can show our work to more people interested in AI and learning. We can do this by promoting our outputs, such as our website, newsletters, and guides with practical examples and resources on using AI in adult education. We can also use social media, webinars, workshops, conferences, etc. to share our work.
- We can reach out to more people who can benefit from or contribute to our project's results. We can contact policymakers, practitioners, researchers, and learners in adult education and AI technology. We can also look for new partnerships and collaborations with other organisations or projects with similar goals or interests.
- We can support and improve the reputation of our own organisations as a leaders and innovators in the field of inclusive AI and adult education. We can do this by highlighting our achievements and impacts in our own communication channels, such as our websites, newsletters, reports, etc. We can also use our project's results to apply for more funding or recognition from other sources.

We are very proud of our project and what we have done so far. But we want to continue. We want to keep working on making adult education more inclusive and flexible with AI technology. Please visit our website for more information on our plans for sustaining the INCAI project. We hope you will join us on this journey.





Latest developments elsewhere in AI for Education

AI is changing the way we learn and teach. AI can help make education more inclusive, personalised, accessible, and engaging. AI can also help teachers and students develop the skills and values they need to thrive in the future. Here are some of the latest developments in AI for education:

- UNESCO is working on an Artificial Intelligence and the Futures of Learning project, which aims to support Member States to use AI to achieve the Education 2030 Agenda. The project will produce guidance for generative AI in education and research and a competency framework for school students on AI. You can find more information on their website at: [Artificial intelligence in education | UNESCO](#)
- The World Economic Forum published an article on how AI can accelerate students' holistic development and make teaching more fulfilling. The article highlights the benefits of inclusive AI in education, such as creating personalised learning paths, bridging language barriers, supporting teachers, and addressing bias and ethical concerns. You can read the article at [How AI can transform education for students and teachers | World Economic Forum \(weforum.org\)](#)
- A paper by researchers from India and Australia provides an overview of AI in education from both industrial and academic perspectives. The paper focuses on the latest research in AIEd on reducing teachers' workload, contextualised learning for students, revolutionising assessments, and developing intelligent tutoring systems. You can access the paper at [Artificial Intelligence in Education \(AIEd\): a high-level academic and industry note 2021 | AI and Ethics \(springer.com\)](#)



Final Words...

We have come to the end of our Erasmus Plus project and have learned so much over the past two and a half years. We will continue to explore this topic and incorporate what we have learned and developed into our future work. As we say goodbye as a partnership, we want to conclude that the future of AI in education is bright and promising. It holds the potential to make learning more accessible, engaging, and effective for everyone, ultimately fostering a more inclusive educational landscape.

As AI continues to evolve and integrate into education systems worldwide, its positive impact on learners and educators alike is bound to be transformative.





Acknowledgements



Co-funded by the
Erasmus+ Programme
of the European Union

Disclaimer: The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information



For further information on the project and all the latest news, visit the website:

[Home | INCAI \(incaiproject.com\)](http://incaiproject.com)

And follow us on Social Media:

[\(4\) INCAI Project | Facebook](#)

[INCAI \(@incaiproject\) · Instagram photos and videos](#)

