BLENDED INTENSIVE PROGRAMME:

TRANSVERSAL AND CRITICAL DIGITAL SKILLS IN THE ERA OF GENERATIVE TECHNOLOGIES FOR INCLUSION, UPSKILLING AND RESKILLING

Main objectives and the description:

Digital skills have been a hot topic of the last decades, which in many cases mainly focuses on the operational use of different devices, software and in general, technologies for productivity and efficiency. Notwithstanding the fact that many models for digital competence (i.e. DigComp) include transversal competences such as critical thinking, problem solving, collaboration etc for and with technologies. With the increased use of technologies in the everyday life, this is something to be expected, as in the postdigital societies postdigital skills or literacies become increasingly important. However, the emergence of generative technologies such as generative AI and large languages models, we are witnessing a slight change in the paradigm: we can observe that the discourse around the generative AI tends to include deterministic approaches, often lacking the critical and responsible touch of reality: for instance, overreliance on the generative AI models can already be noticed, while productivity is often mistaken for competence. Moreover, the actual nature of digital/postdigital skills are to be problematized. There can be many cases that where the extensive, unethical, irresponsible and uncritical use of Generative AI can even lead to cognitive "poverty" or deskilling, which in its turn can lead to increased inequalities, exclusion and loss of professional opportunities. The BIP programme targets this exact need to create a curriculum that covers this gap of critical, responsible and explainable use of modern digital technologies to prevent the de-skilling and exclusion.

In the context of generative technologies such as AI and large language models, the need for transversal and critical digital skills is increasingly apparent. These skills span beyond basic technical know-how to encompass a broad array of competencies that are applicable across different jobs and life situations. An in-depth exploration of this need is crucial.

Transversal Skills for the Digital Age:

Critical Thinking: This skill involves questioning assumptions, evaluating sources and evidence, and making informed decisions. In the era of generative technologies, critical thinking is essential for distinguishing between reliable and unreliable outputs of AI systems.

Problem-Solving: As AI systems present new challenges, such as bias in algorithms or unexpected behaviors, the ability to troubleshoot issues and devise solutions becomes crucial. Problem-solving also encompasses the ability to conceptualize how AI can be used to address real-world issues.
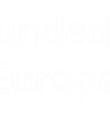
Collaboration: Working with digital technologies and GenAI requires a collaborative approach, as interdisciplinary teams must come together to integrate technology into various domains. This includes the ability to communicate effectively with both technical and non-technical stakeholders.

Inclusion, Upskilling, and Reskilling:

Inclusion: Generative AI has the potential to either bridge or widen the digital divide. Ensuring that everyone has access to education on these technologies promotes inclusivity and helps prevent a future where only a select few can leverage AI's benefits.

Upskilling: For professionals already in the workforce, upskilling ensures that their knowledge remains relevant in the face of advancing AI. It allows them to work alongside AI effectively and use it as a tool for enhanced productivity.

Reskilling: As some jobs become automated, reskilling provides pathways for individuals to transition into new roles that AI cannot fulfil. It prepares the workforce for the future economy, where human insight and creativity will be paramount.

Challenges and Solutions in Generative AI:

Deterministic Approaches: There's a risk that the deterministic nature of AI could lead to an environment where outputs are not questioned. The BIP program aims to instill a mindset that looks beyond the surface-level efficiency of AI and evaluates the broader implications of its use.

Overreliance and Competence: A distinction must be made between the ability to use AI tools and the deeper understanding of their workings and impact. Overreliance without understanding can lead to errors and a false sense of competence.

Ethical and Responsible Use: Generative AI raises significant ethical questions. The BIP program seeks to embed ethical considerations into the curriculum, ensuring that users not only know how to use AI but also when and why to use it.

Cognitive Poverty and Deskilling: A curriculum that includes critical use of AI aims to prevent cognitive atrophy by keeping the mind engaged in the higher-order thinking processes that AI cannot replicate.

The BIP Program's Curriculum Focus:

Explainable and responsible use of AI: Understanding the rationale behind AI decisions is crucial for trust and accountability. The BIP program emphasizes the need for understanding the basic functionalities and logic behind GenAI systems to be able to reflect on its transparent uses.

Holistic Competence: The curriculum addresses the gap between operation and comprehension, seeking to ensure that users can both utilize digital and GenAI tools and critically assess their output.

In summary, the BIP program confronts the modern challenge of ensuring that the workforce and society at large are not only technically proficient but also ethically informed, critically engaged, and socially inclusive in their approach to generative technologies. It's an initiative that recognizes the multifaceted nature of digital competence in an age where technology's influence permeates all aspects of life.

Organization

THE PARTICIPATING STUDENTS WILL BE AWARDED 4 ECTS CREDITS BY THE COORDINATING UNIVERSITY: UNIVERSITY OF L'AQUILA, ITALY

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Maria Perifanou

Anastasios Economides

Alla Krasulia

Jennifer Wengler

Ana Torres

In presence @University of L'Aquila, Department of Human Sciences I

09 September 10:00-16:00

Opening

Maria Perifanou, Anastasios Economides, Ana Torres (University of Macedonia, Greece/Polytechnic of Santarem, Portugal)

Use of GenAI for self-directed and autonomous learning – tools, concepts, approaches

Mart Laanpere (Tallinn University, Estonia)

How does it work? a short technical know-how

10 September, 10:00-16:00

Mart Laanpere (Tallinn University, Estonia)

Skilled, competent and capable in an increasingly automated world – what's next?

Claudia Migliaccio (IMT, France)

Challenge-based learning: GenAI and prospects for educators

11 September 10:00-16:00

Alla Krasulia (Sumy State University, Ukraine)

How do I speak to the machine?

Jennifer Wengler (Leibniz University of Hannover, Germany)

Can AI Feel? Affective Computing Between Science and Fiction

12 September

Jennifer Wengler (Leibniz University of Hannover)

Lost in Transformation? Disruptive Impacts and Opportunities of Generative Artificial Intelligence for Foreign Language Education

Maka Eradze and Martina Manna (University of L'Aquila, Italy)

Socio-technical panorama: societal Impact - technical, conceptual and critical perspectives

13 September 10:00-16:00

Martina Manna and Maka Eradze (University of L'Aquila, Italy):

Linguistic properties of GenAI – new communication interface between human and non-human

Social activity

Online: 4 November 14:00-17:00

Ioanna Roussaki (National Technical University of Athens, Greece)

Usage of AI in higher education settings