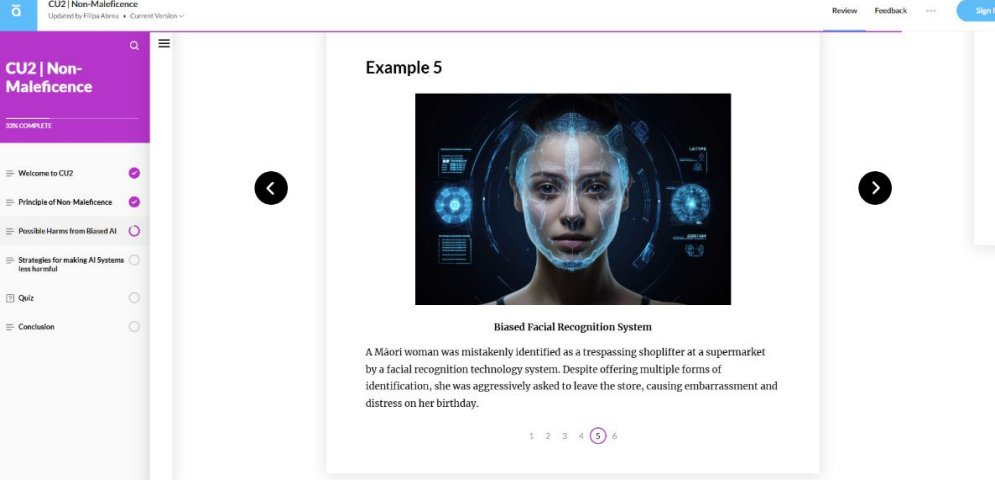# Charlie

Challenging Bias in Big Data user for AI and Machine Learning

Welcome back to the CHARLIE project newsletter!

This month, we're highlighting the "**Ethical AI Micro-Credential**" course, a vital part of our mission to equip individuals with the knowledge and skills needed to navigate the complex ethical landscape of AI development. As AI systems continue to shape critical decisions in fields like healthcare, education, finance, and governance, understanding algorithmic bias and its ethical implications is more important than ever.

Featured Course: Ethical AI Micro-Credential Bias

The "Ethical AI Micro-Credential" EQF4 course is designed to provide learners with a foundational understanding of algorithmic biases and their broader impact on society. Whether it's determining who gets a job, approving loans, or providing personalized medical care, AI systems influence some of life's most important decisions. However, these systems are not immune to bias, and when left unchecked, these biases can lead to unfair or even harmful outcomes. This course equips participants with the tools to recognize, understand, and address these issues, fostering ethical AI development from the ground up.

Why This Course Matters

The rapid growth of AI technologies has opened up new opportunities, but it also presents significant ethical challenges. Bias in algorithms is not just a technical glitch; it has real-world consequences that can perpetuate inequality, infringe on human rights, and damage trust in AI systems. The Ethical AI Micro-Credential offers a focused and accessible pathway for learners to develop a nuanced understanding of these ethical issues at an EQF4 level, providing essential insights for students, professionals, and educators involved in AI.

The course is broken down into **six comprehensive Competency Units** (CUs) designed to give learners both theoretical knowledge and practical skills:

CU1: What is Algorithmic Bias?
Explore the definition, sources, and causes of algorithmic bias, with real-world examples to illustrate the consequences of biased systems.

CU2: Non-Maleficence
Focus on the ethical principle of avoiding harm, particularly the risks associated with biased AI systems, and learn strategies to mitigate these risks.

CU3: Accountability
Delve into the importance of accountability in AI, exploring frameworks that define the responsibilities of stakeholders and ways to ensure accountability throughout the AI lifecycle.

CU4: Transparency
Examine the importance of transparency in AI decision-making, learning about methods and tools that can enhance the explainability of algorithms while addressing challenges that come with making complex systems more understandable.

CU5: Human Rights and Fairness
Investigate how biased algorithms impact human rights, focusing on issues like non-discrimination, privacy, and fairness, and learn how to ensure equitable AI development.

CU6: AI Ethics, A Practical Approach
Engage with real-world case studies and projects, applying ethical principles in the development and deployment of AI systems while learning the importance of interdisciplinary collaboration and stakeholder engagement.

Who Should Take This Course?

This micro-credential is aimed at learners pursuing an EQF4 qualification, including those in vocational education or professionals looking to develop a basic understanding of AI ethics. The course aligns with the European Qualifications Framework (EQF) Level 4, ensuring that learners possess the foundational knowledge and skills needed for effective participation in AI-related fields.

Key characteristics of EQF4 learners include:

Factual and Theoretical Knowledge
A broad understanding of algorithmic processes, data use, and basic AI concepts.

Cognitive Skills
The ability to identify, analyze, and solve problems related to AI bias.

Practical Skills
Tools and techniques for mitigating bias and improving fairness in AI.

Autonomy and Responsibility
The ability to apply ethical principles to personal and professional AI-related decisions with moderate supervision.

Communication and Collaboration
Basic skills to communicate about AI ethics with peers and professionals, fostering a collaborative approach to solving AI bias.

Lifelong Learning
A commitment to continuously updating knowledge on AI ethics and bias mitigation techniques.

Get involved!

Excited about the future of ethical AI education? Ethical AI Micro-Credential to your institution? The CHARLIE project is actively collaborating with educational organizations to expand access to AI ethics education. Explore how this course can enhance your curriculum and contribute to the development of responsible AI technologies.

For more details, visit the CHARLIE project website and join us in shaping the future of ethical AI!

https://charlie-project.uib.es/

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