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Advanced Digital Skills for Health Professionals: 20 Joint Learning Objectives

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Abstract. Healthcare workplaces lack vital digital skills. In 2023, co-design sessions identified 20 essential learning objectives (LOs) aligned with EU policies.

Keywords. Digital health education, digital skills, AI, data management.

1. Introduction

The EU ICT for Work study highlights that 17% of healthcare workplaces lack adequate digital skills [1]. EU initiatives promote digital infrastructure, skills development, and ethical AI use; but healthcare professionals skills are behind [2].

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2. Methods

In 2023, interdisciplinary co-design sessions developed an education program to train professionals for a sustainable healthcare system through efficient health data use.

3. Results

20 learning objectives (LO) were identified and benchmarked:

Data	LO1. Explain the principles of European Health Data Spaces LO2. Recognize data flows in healthcare system LO3. Comply with data regulation and European values LO4. Examine the role of data and data quality in analytics and AI. LO5. Perform descriptive statistics, create and select visualisations
AI	LO6. Discuss ethical aspects in adoption of AI in decision making LO7. Indicate regulation related to adoption and use of AI in health LO8. Explain what AI is and what it is not LO9. Categorize different branches of AI LO10. Explain basic machine learning
Health ICT	LO11. Investigate the potential of medical IoT in care LO12. Examine modern digital enterprise architectures in healthcare LO13. Describe interoperability issues and the role of standards
Sustainability	LO14. Examine sustainability, eco-responsibility and scalability
Cybersecurity	LO15. Distinguish security and privacy challenges in health context LO16. Discuss privacy and security design approaches
Regulation	LO17. Identify relevant regulative frameworks
Global health	LO18. Apply accessibility guidelines in health applications LO19. Discuss the role of digital health data in global health LO20. Analyze impact of digital health, e.g. on sustainability

4. Discussion and Conclusions

The LOs align with key healthcare concerns, with dire need for digital and data literacy for healthcare professionals [1,2]. AI and climate change further this need.

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