Artificial Intelligence and Online Training: Trainers' Perceptions within a National Training Network

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1 Introduction and Research objectives

Generative Artificial Intelligence is reshaping knowledge production, organisation and transmission, with growing effects on vocational, continuing and digitally mediated education. Existing research has largely focused on higher education institutions and students, while empirical evidence concerning professional trainers remains limited [1–6]. This study explores how experienced trainers use AI and interpret its cognitive, ethical and relational implications. Established in 2016, AssOAFoP connects 61 accredited training organisations and employment agencies operating across regions and in national and European initiatives. Its members deliver approximately 500–600 courses and serve around 7,500 participants annually. The network was selected because it links training providers, universities, institutions and labour-market actors, building also on previous collaboration with CAFRE–University of Pisa. This study examines AI diffusion, frequency and contexts of use, favourable and critical perceptions, and the value attributed to human mediation.

2 Research Design, Findings and Educational Implications

2.1 Research questions and methodology

This study addressed three main research questions: (RQ1) how, how frequently and in which contexts trainers use AI; (RQ2) how they evaluate its benefits and cognitive, ethical and relational risks; and (RQ3) how trainers perceive AI's effects on learner autonomy, educator–learner interaction and their mediating role. These dimensions were operationalised through items on adoption, frequency, applications, opportunities, risks and educational relationships.

An original 51-item questionnaire, including 47 closed or semi-closed and four open-ended questions, was distributed through Google Forms between October 2025 and March 2026. It was reviewed with AssOAFoP and pretested with approximately

ten external participants; no formal psychometric validation was conducted. Of 130 invited trainers, 91 provided valid responses (70.0%). Identifying fields were excluded. Closed responses were analysed using frequencies, percentages, means and standard deviations; open responses were examined qualitatively to identify themes, motivations and experiences. Of respondents reporting professional experience, 64.6% had worked in training for over ten years.

2.2 Main findings

AI use is widespread within the sample: 96.7% have experimented with it, 80.2% use it for work or training and 57.1% for personal purposes. Professional use is mainly occasional (60.4%), while 18.7% report weekly use and 11.0% daily use; 70.3% describe their initial approach as immediately enthusiastic. Applications mainly concern information retrieval, teaching materials, presentations, synthesis, examples, training design, translation and content personalisation.

Attitudes are favourable but ambivalent. Mean enthusiasm is 7.05/10 (SD = 1.66) and perceived support for trainers 6.95/10 (SD = 1.66). AI's potential is considered greater than its criticalities by 44.0%; 44.0% regard them as balanced and 12.1% emphasise criticalities.

The principal concern is cognitive delegation: 94.5% perceive some risk of mental laziness and excessive delegation, 91.2% dependence, 90.1% reduced critical capacities and 85.7% weaker contextualisation. Open responses associate benefits with speed, information access, content preparation, synthesis, personalisation and productivity; concerns focus on over-reliance, weakened autonomy, misinformation and bias, privacy, learner responsibility and human interaction.

2.3 Interpretation, limitations and implications

The findings reveal a complex, non-polarised relationship with AI and support critical integration. Concerns about dependence and reduced autonomy align with recent research on critical thinking, over-reliance and the preservation of the human dimension in AI-supported education [7–9]. Practical AI literacy should emphasise output verification, independent judgement, privacy and educator–learner interaction. The teacher-trainer may thus be reconfigured as a critical mediator within responsible AI adoption [8, 9].

3 Conclusion

Within AssOAFoP, favourable AI adoption coexists with cognitive, ethical and relational concerns. This study supports combining experimentation, critical competence and educational relationships. Given its single-network design, future research should compare other vocational and educational networks.

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