



PREAMBLE

“Education has been the Cinderella of the AI story – largely ignored in the literature and by governments, companies and educational institutions worldwide. This needs to change rapidly: AI could be the Princess Charming or the Ugly Sisters in education.”

Sir Anthony Seldon

Artificial Intelligence (AI) has the potential to address some of today's biggest educational and training challenges, to innovate teaching and learning practices, and to accelerate progress towards quality, inclusive, equitable, and lifelong education (4th Goal of Sustainable Development of UNESCO, 2015). However, both AI and its presence in the educational system and in societies already have a history, and numerous authors of the past – pedagogues, sociologists, philosophers and intellectuals belonging to different fields of knowledge – have questioned the opportunities, risks, and challenges generated by rapid technological developments.

Among the many questions asked, the following seem to be particularly inspiring: How have AI systems changed, how are they changing, and will they change the educational experience? What has been, is, and will be the impact of AI on the institutional places of education and training, and on the ideas that guide the *governance processes*? How have the AI systems changed, how are they changing, and how will change relationships and social interactions? How should education be implemented to produce a constructive interaction between humans and machines? Which type of education system can be best integrated into a highly or totally digitalized society?

Through the reconstruction of the ideas that have historically animated the debate on these issues, it is also possible to explore a range of contrasting positions. Some authors, particularly suspicious of technological innovation, have called for a return to a classical and "traditional" education, while others have argued for the need for a training decidedly centered on techno-scientific knowledge, relegating the humanities to an ancillary function. There is, however, no lack of intermediate positions, which have seen automation as an opportunity to affirm a humanistic



approach to the use of AI itself, hoping for an integral type of education. With this in mind, in this special issue, we invited and welcomed contributions that explored the evolution of the debate on AI and its profound impact on human societies, on education and lifelong learning systems, even on the labor market and economies.

The articles included in the issue first investigate *the history* and, secondly, *the implications* of the use of AI in education, in relation to the future of the labor market and the development of skills in training courses.

More in detail, Giulia Fasan's contribution "Education and the Future" charts how the future looked to the Italian world of education in the 1960s and 1970s, by analyzing articles published in *Scuola Italiana Moderna (SIM)*, a specialist journal for teachers with Catholic leanings. Carla Callegari's work "Technologies, Education and Teaching Methodologies in Italian Schools in the 1980s" explores the contributions appeared in *SIM* in the following decade. Fabio Grigenti's "The Child Program and the History of Artificial Intelligence" reviews some moments in AI's history to outline the idea of a possible educational protocol for the future. Riccardo Campa contributed with two articles, namely "Educating Against the Automated World" and "Educating For the Automated World," to underline the role of political philosophies and meta-technological attitudes, such as technophobia and technophilia, in shaping pedagogical recipes. To illustrate this point, he revisited the education theories elaborated by prominent intellectuals such as Alexis Carrel, Aldous Huxley, John Dewey, and Mortimer Adler. Finally, Alessandra Passaretti reviewed Maria Luisa Iavarone's edited book *Educare nei mutamenti. Sostenibilità didattica delle transizioni tra fragilità e opportunità*.

All these contributions confirm that the emergence of automation and AI is, in fact, stimulating a reflection on the change both in the ideas of education, teaching and learning, as well as in the formal, non-formal, and informal places of education. In other words, the need for a new—or different—pedagogical, ethical, and social awareness is emerging.

Giulia Fasan and Fabio Grigenti