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From the Editors

History of Science and Science Education: A Necessary Dialogue

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Throughout the twentieth century, not only were sciences and their impacts developed exponentially, but, in the same way, there was a vast increase in the possibilities of analyzing this scientific knowledge in its many social implications as well as in its epistemological and educational presuppositions. In other words, these analyzes were not restricted to asking how science is produced and how it affects society, but we also started to wonder about the best way of transmitting scientific knowledge. In the long run scientific culture is sustained not only by the extraordinary achievements of science and technology but also by its ability to perpetuate itself through the continuous training of new scientists and engineers. It is true that we have learned from Francis Bacon that "to know is power", but we also come to understand that it would be vital to pass on this knowledge to perpetuate it. In short, we have learned that without a well-established science education, science has no future.

Especially since the twentieth century, science education has become central to scientific culture. This educational process will be all the better if it is more intertwined with the historical, social, and philosophical questions inherent in the production of scientific knowledge. In other words, there is an inseparability between the history of science, philosophy of science and science education. Although these are specific fields of knowledge already well-established, we can only understand – and indeed intervene – in the teaching-learning process of sciences if, at least, we can situate a scientific knowledge in the historical time that produced it as well as in its specific epistemological perspectives.

It is true that a merely "technical" scientific education can be sponsored without proper historical and philosophical analysis, but this ends up being a tremendously poor education, stuck to a positivist view of science as the producer of eternal truths, and will fatally end up fossilizing science itself. It is against this view that science education has been positioned, above all, from the second half of the twentieth century. There is a long historiography produced on scientific education both concerning the didactic and methodological aspects of teaching science and technology and its historical, social and

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philosophical implications. Based on this perception, we seek in this issue of the journal *Transversal* to bring to the dialogue a reflection on this historiography of scientific education in its interfaces with the history of science and the philosophy of science. With this, we try to encourage our authors and readers to find in the pages of our journal – not only in this issue but in future editions – a place to welcome reflection on the historiographic path of scientific education.

Last but not least, we must express our great thanks to Professor Raffaele Pisano (Lille University) for proposing and organizing the dossier *Methods and Cognitive Modelling in the History and Philosophy of Science–&–Education* we are presenting. Without the expertise, competence, and zeal of Professor Raffaele Pisano, this dossier would not have existed.

