

GUIDE ASSOCIATION NEXT CONFERENCE IN ROME

The new GUIDE Association conference *The Education in the Fourth Industrial Revolution* will be held in Rome-Italy the 3rd and 4th May 2018 at Guglielmo Marconi University. The purpose of the conference is to provide an academic platform for researchers, scientist, professors and institutions to analyze the impact of the new technologies involved in the so called Fourth Industrial Revolution that is characterized by the new role acquired by machines, capable to do what was considered before only possible by the humans. As far as this new approach could affect all the aspects of life, society, economy, culture, education and the job market, this requires that the Universities have to adapt themselves to the new changes by creating an adequate contexts to prepare their students for the future jobs. As a consequence of a new industrial revolution, schools, colleges and Universities have to face new challenges in the field of research and applications and to analyse the new trends coming up such as: digital ubiquity, cyber-physical systems, and artificial intelligence, 3D printing, robotics, Big Data and Internet of Things (IOT) In this framework again research plays a central role in transferring students the ability to use and apply different knowledge in diversified contexts, in learning how to collaborate with their colleagues and their teachers and how to use new ways of communicating and the adequate skills to solve complex situations.

The conference will approach the following 3 macro-themes:

Didactics for the digital age

In recent decades, educational activity has been essentially focused on the epistemology of “constructivism” and its evolution. The centrality of the student was the basis of the methodologies in the subsequent teaching. Today the sciences of complexity, neuroscience and social sciences based on biology make it possible a great advance in the teaching, both in traditional and in distance learning. The theories of “enactivism”, not new, but unexplored in the 1980s and 1990s, due to the close connection between sensory-motor perceptions and conscious experience, are capturing the attention of virtual worlds builders for didactics (pedagogues, teachers, engineers, computer scientists, etc.). At this point it seems necessary to carefully consider the transition from “learner-centered education” to “multilevel interactions” between teacher, learner and the environment in which interaction takes place.

Educational robotics: the future of mediation

Educational Robotics have reached so sophisticated application levels as to be a true point of strength in the interaction-based learning process. The potential of e-learning is enriched by (real or virtual) laboratories that are dealing with experiments in the fields of the: “Augmented Reality”, “Multiplayer Virtual Worlds”, or “Simulation Game”. Based on the “Technology Enhanced Learning “ methodologies, educational robotics seems to be inspired by the thinking of Seymour Papert, aimed to make the students “...independent, responsible for their learning ...” but also supported by educational artifacts, such as those mentioned.

Educational strategies for smart manufacturing: preparing for future growth and innovation

Manufacturing remains a critical force in both advanced and developing economies. Over the last decade, the sector has drastically changed bringing an enormous chance in terms of jobs, growth and people’s lives improvement. New and emerging technologies are key drivers for the development of innovative products, processes and services and offer significant opportunities for both small and large enterprises. This changes will have a profound impact on the employment over the coming years. Is therefore crucial to enable the existing workforce and rising generations to acquire the necessary skills that industry needs now and in the future. In this framework, education has to adapt to the changed conditions re-thinking the current model of pedagogy. The new paradigm needs a change not only in the competences of managers, employees and workers operating in the future smart factories but also in the cultural approach of people of all ages thus encompassing all levels of education, from university to secondary and even primary school.

GUIDE Association is pleased to invite all the Association’s members, researchers, professors and scholars to participate to the conference and to contribute to the debate and discussion. The papers submitted and approved by the Scientific Committee of the Conference will be published as Conference Proceedings of the XIII International GUIDE Conference in the GUIDE association official journal: *Digital Universities: International Best Practices and Applications*.

The deadline to submit the abstracts is February 5, 2018. For further information you can visit the conference webpage at: . <http://conference.guideassociation.org/en/the-conference>