Talk 1

Using Companion Robots for Education

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Abstract

A companion robot is defined as a device consisting of a physical robot component that connects to Cloud services to improve the ease and productivity of activities through networking, multi-media and sensory technologies. It is believed that robotic computing can provide a good experience to engage university and pre-university students in Science, Technology, Engineering, and Mathematics (STEM) education. Many studies found out that anthropomorphic designs of what robots are, what they can do, and how they should be understood resulted in greater user engagement within the history of Western countries. Cultural differences may influence human-robot interaction with different social norms and cultural traits, especially in West and East. In contrary to the Western image of robots as frightening machines, there is a different culture in the East. To let the robotic computing technology, develop without national boundaries, it is necessary for us to consider different cultures during the design and development phases in robotic computing. This talk discusses several education studies on companion robots from this socio-technical perspective.

Short Biography

Patrick C. K. Hung is a Professor and Director of International Programs at the Faculty of Business and Information Technology in University of Ontario Institute of Technology, Canada. He currently works with the College of Technological Innovation at Zayed University on several smart city and cybersecurity research projects in the United Arab Emirates. He is also a Visiting Researcher at University of São Paulo, Brazil and National Technological University (UTN)-Santa Fe, Argentina. Patrick worked with Boeing Research and Technology at Seattle on aviation services-related research with two U.S. patents on mobile network dynamic workflow system. Before that, he was a Research Scientist with Commonwealth Scientific and Industrial Research Organization in Australia as well as he worked as a software engineer in the industry in North America. He is a founding member of the IEEE Technical Committee on Services Computing, and the IEEE Transactions on Services Computing. He is a Coordinating Editor of the Information Systems Frontiers. Further details can be found at http://businessandit.uoit.ca/people/faculty/networking-and-it-security/patrick-hung-phd.php