A Portal Designed to Learn about Educational Robotics

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Abstract: Since robotics requires problem-solving and collaboration (Bers, 2008), using robotics in education has a high potential of helping students learn 21st century skills (Lowther, Inan, Ross, & Strahl, 2012). Student engagement is also critical in K-12 education; even students who tend not to be attracted to academic tasks tend to be engaged when robotics activities are used in class (Baker, 2011). Robotics provides a great tool for teachers to facilitate active learning (Perritt, 2010). However, such benefits cannot be achieved without effective teacher preparation (Greenberg, McKee, & Walsh, 2013).

In this presentation, we introduce research on and development of a portal for Open Education Resources (OERs) for the use of robotics in teaching and learning. Such OERs are designed to help teachers learn how to integrate robotics into teaching. Example OERs include (a) videos showcasing how to teach with certain robots, and (b) toolboxes consisting of lesson and programming samples.