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ACCEPTED MANUSCRIPT

Entertainment, Engagement, and Education: Foundations and Developments in Digital and Physical Spaces to Support Learning through Making

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Abstract:

Making is a relatively new concept applied to describe the increasing attention paid to constructing activities to enable entertaining, and engaging learning. Making focuses on the process that occurs in digital and/or physical spaces that is not always learning oriented, but enables qualities such as problem solving, design thinking, collaboration, and innovation, to name a few. Contemporary technical and infrastructural developments, such as Hackerspaces, Makerspaces, TechShops, and FabLabs, and the appearance of tools such as wearable computing, robotics, 3D printing, microprocessors, and intuitive programming languages, posit making as a very promising research area to support learning processes, especially towards the acquisition of 21st-century learning competences. Collecting learning evidence via rigorous multidimensional and multidisciplinary case studies will allow us to better understand and improve the value of making and the role of the various digital and physical spaces. Drawing from our experience with a recent workshop that used making as a pathway to foster joyful engagement and creativity in learning (Make2Learn), we present the developments, as well as the four selected contributions of this special issue. The paper further draws attention to the great potential and need for research in the area of making to enable entertaining, and engaging, and learning.

Keywords: Maker movement; learning technologies; entertainment technologies; creativity; knowledge construction; technological fluency; constructionist

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