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PAINT-BOT

Sharing the Innovative Idea of Robotics and Art

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Abstract

The proliferation of new technologies and the Internet has had influence on many fields of human activity and has expanded the learning environment. Nowadays we can easily share our experiences and ideas with other people through the Internet. In a project called PAINT-BOT one of the aims is to share with others the idea of connecting robotics, programming and art practice by the Video E-book. New technologies appear in contemporary art as well as with paint brushes. These days we need to know how to create art objects not only by using traditional means of expression but also by using robot elements and programming. The innovative use of new technologies is supported by creativity and art encourages people to be creative. The emphasis of the PAINT-BOT project is put on a mixture of technology and art – an innovative connection for developing both the polytechnic, and art education. The project focuses on enhancing technical and visual/art competences and problem-solving learning in design, construction and programming. Learners have an active role in designing the Video E-book as filmmakers and revisers of the video material and questions about the project's program are planned to be discussed with them. The Video E-book will be shared on the project's website to get feedback.

Two groups of learners will be working on robotics and art from January 2013 until June 2013 in the Center of Culture in the village of Tarnów, Opolski. The children of the younger group (7-11 years old) work on simple robots that will enable them to draw lines using colour tools. They will use, for example, a colour crayon or a marker. They will draw lines on big sheets of paper enclosed by blocks or other obstacles. When a robot comes near this obstacle a sensor inside it will change its path of movement. The young group (12-18 years old) will work on an autonomous entity able to create works of art with three airbrushes, each will be equipped with a paint bucket and will use servomotors to control the intensity of the colour. The aim of the videos is to show the development of working on robots and art objects. All films will also be presented in special shows and festivals. Infographics are dedicated to important details of the process of creating robots and art practice. The video and infographics will contain descriptions and shall help expand upon the information concerning the learning process.

Keywords

media and information literacy, video, e-book, robotics, visual arts

Biographies



Anna Marcinkowska, PhD student in the Institute of Pedagogical Sciences, Opole University. She is interested in educational arts-based research. Her dissertation work concerns media and information literacy.



Krzysztof Marcinkowski a PhD student in the Institute of Philosophy, Opole University. He is preparing dissertation work in the fields of philosophical anthropology and aesthetics. In 2010 he has started his work in Communal Cultural Center in Tarnów Opolski as a teacher of: ceramics, animation, graphic design and also as an artistic project specialist, focused on local community animation.

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