FLOSS Education and Computational Thinking Workshop @ OSS 2016

Jesús Moreno-León, Terhi Kilamo, Gregorio Robles

FLOSS Education and Computational Thinking Workshop @ OSS 2016

Jesús Moreno-León[1](✉), Terhi Kilamo[2], and Gregorio Robles[3]

[1] Programamos.es, Seville, Spain
jesus.moreno@programamos.es
[2] Tampere University of Technology, Tampere, Finland
terhi.kilamo@tut.fi
[3] Universidad Rey Juan Carlos, Madrid, Spain
grex@gsyc.urjc.es

Introduction

The presence of FLOSS in education has not stopped growing in the last years. The trend has been clear both in K-12 and higher education. While using FLOSS can support teaching computer science and other disciplines, its benefits lie in teaching FLOSS itself as part of the curriculum.

An example that can illustrate this situation is the teaching of computational thinking skills through computer programming, which is one of the latest trends in education - for instance, Finland has just added coding and computational thinking as part of the national core curriculum for primary education. This field has been globally addressed almost exclusively with FLOSS technologies, both by using FLOSS platforms and programming languages, such as Scratch or Alice, but also by including in the curriculum the social aspects of software development that characterize FLOSS movements, like sharing and contributing to the community.

The purpose of this workshop is to bring together free software experts and educators to discuss challenges that we face in the educational world at present and that we will face in the future and how they can be undertaken from a FLOSS perspective.

Topics of Interest

The topics of interest of this workshop include but are not limited to:

– Teaching experiences with FLOSS/free content
– FLOSS in higher education
– FLOSS in K-12
– FLOSS practices in education
– FLOSS in the curriculum
– Computational thinking teaching and FLOSS

Specific Research Questions

Specific questions that are of special interest to this workshop are:

– Which FLOSS approaches have proven beneficial to education?
– What experiences do you have in collaboration with FLOSS communities in education contexts?
– How do you produce and share your educational materials?
– What assessment and certification models did you apply? Why have those models been chosen?
– What models for sustainability and revenue generation worked successfully?
– What efforts are undertaken to come towards a compatible or standardised curriculum?
– What indicators are measured to show strengths and weaknesses of the initiative?
– How is copyright and licensing managed in your institution/initiative? What (potential) impact does this policy have on sustainability?
– How can curricula be designed to foster the spirit of sharing?
– What FLOSS technologies do you use to teach computational thinking?
– How do you promote FLOSS social aspects in your lessons?

Programme Committee

– Yasemin Allsop, University of Roehampton (United Kingdom)
– Alessandro Bogliolo, University of Urbino (Italy)
– Jordi Freixenet, University of Girona (Spain)
– Petri Ihantola, Tampere University of Technology (Finland)
– Oystein Imsen, Lær Kidsa Koding (Norway)
– Terhi Kilamo, Tampere University of Technology (Finland)
– Simon Marsden, University of Portsmouth (United Kingdom)
– Joek van Montfort, Scratchweb Foundation (Netherlands)
– Jesús Moreno, Programamos.es (Spain)
– Eduard Muntaner, Inventors for Change (Spain)
– Peter Parnes, Luleå University of Technology (Sweden)
– Gregorio Robles, Universidad Rey Juan Carlos (Spain)

Sponsorship

This workshop is sponsored in part by the Region of Madrid under project "eMadrid - Investigación y Desarrollo de tecnologías para el e-learning en la Comunidad de Madrid" (S2013/ICE-2715).