Teaching and Learning Scratch in Schools Around the World

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Abstract

Since its initial launch in the summer of 2007, the tutorials of LearnScratch.org have been viewed in schools of 142 countries. This presentation summarizes the main phases in the evolution of the site. In addition to the direct viewing of the tutorials from the site, schools and institutions wishing to install these materials into their own computers and networks can receive from LearnScracth.org a DVD containing the totality of the materials. Currently over 1300 schools and institutions around the world have requested these materials. This presentation includes a description of the geographical distribution of these schools around the world. Finally, in the summer of 2010 a new update of the website will be released. This third version of the website will add a new set of projects specially designed to integrate Scratch into the Technology curriculum in schools in the US and abroad. These projects are grouped be grade level and include references to school standards.

Introduction

The website LearnScrach.org was launched in the summer of 2007 as an educational resource to help teachers incorporate Scratch into the classroom. It is based on a comprehensive set of video tutorials that provide a path for the exploration of the possibilities offered by Scratch, and a detailed description of projects (drawing, music, math, storytelling, animation, etc.) that could serve as an initial toolbox of projects from which to remix, expand, personalize and explore.

At the request of teachers using the website, in the summer of 2008 the materials were restructured into three separate courses based on their targeted audience, complexity and time required to complete the lessons.

Each course is accompanied by a set of Lesson Plans describing the goals, content and related projects for each lesson.

Schools Around the World

Currently over 1300 schools and institutions from around the world have requested and received copies of the website materials to be installed into their own computers and networks. This allows the schools to reduce the internet bandwidth demands for the streaming of video. In certain parts of the world this limitation is obvious and will persist for several years.

As could be expected, developed English-speaking countries are the top users of these materials. These include the US, the United Kingdom, Australia, Canada and New Zealand. It is noticeable

that in States where the administration is active in promoting teacher continuing education through conferences, workshops, etc., the degree of sensitivity and willingness to embark in new projects in the classroom, such as Scratch, is significantly greater. This is also manifest in certain local governments of Australia and the UK.

Some anecdotal cases of small countries such as Malta, Seychelles or Bhutan are examples of how new technologies and a global community allow for the rapid development of new and modern curricula in the classroom.

Also, countries such as the US, Canada, Australia, Taiwan, and Singapore are involved in integrating Scratch formally into their school curriculum. This is done either via grants, projects, or directly by the education departments of the administration.

Integrating Scratch into the Technology Curriculum

Public school systems in the US often lack the flexibility to rapidly modify their curriculum, experiment with new environments and benefit from potentially useful tools, materials and methods. A structure of standards, learning expectations, outcomes and performance indicators, as well as standardized tests, prevents the easy integration of new environments, such as Scratch in the classroom unless the teachers recognize how the new tools help them meet their current obligations.

The new update of LearnScratch.org, to be launched in the summer of 2010 addresses this point by adding a new set of projects, tutorials and lesson plans. These materials are specially designed to integrate Scratch into the Technology curriculum. They are grouped by grade level and offer information on the particular standards addressed by each project. The areas addressed by these projects include: basic operations and concepts of technology; social, ethical and human issues associated with technology; technology and productivity; technology and communication; technology and research.