Scratch & Share: Collaborating with Youth to Develop the Next Generation of Creative Software

In today's rapidly changing world, people must continually come up with creative solutions to unexpected problems. So it is essential for young people to have access to tools, opportunities, and support to develop as creative thinkers.

That was our core motivation in developing Scratch, a graphical programming language that empowers young people (ages 8 and up) to create their own interactive stories, games, animations, and simulations. Since its launch in 2007, the Scratch website (http://scratch.mit.edu) has become a vibrant online community, with more than 400,000 registered members sharing, discussing, and remixing one another's projects. Available free of charge, Scratch is used in homes, schools, libraries, museums, and community centers. One teacher wrote: "I have never seen students take to something so quickly or with such enthusiasm. It unlocks their creativity and empowers them."

In online forums, children and teens have posted hundreds of creative suggestions for new features and capabilities for future versions of Scratch. Based on these suggestions, we propose to develop a new generation of Scratch, called Scratch 2.0, that will dramatically expand opportunities for young people to share ideas, collaborate on projects, and develop as creative thinkers. We will work closely with Scratch community members, providing them with ongoing opportunities to propose features, test prototypes, and share resources.

New features of Scratch 2.0 will include:

* sharing Scratch projects on mobile phones, tablets, and other new platforms;

* integrating Scratch with social media, so that young people can program projects to dynamically pull content from and push updates to Facebook, Twitter, Flickr, and other Web 2.0 sites;

* providing infrastructure for groups of young people to collaborate on projects (including version control and collaborative annotations);

* enabling young people to program, remix, and share projects more seamlessly, all within a web browser, without any downloading or uploading.