

Scratch was developed as a networked, media-rich programming environment, designed specifically to enhance the development of technological fluency at after-school cares in economically disadvantaged communities, grounded in the practices and social dynamics of the Computer Clubhouse, a network of after-school cares where youth (ages 5–18) from low-income communities learn to express themselves with new technologies. The researchers studied how Clubhouse youth learned to use Scratch to design and program new types of digital-arts projects, such as sensor-controlled music compositions, special-effects videos created with programmable image-processing filters, robotic puppets with embedded controllers and animated characters. Scratch's networking infrastructure, coupled with its multilingual capabilities, enabled youth to share their digital-arts creations with other youth across geographic, language, and cultural boundaries.

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This research advanced understanding of the effective and innovative design of new technologies to enhance learning in after-school centers and other informal-education settings, and broadened opportunities for youth from under-represented groups who became designers and inventors with new technologies. Scratch was iteratively developed based on ongoing interaction with youth and staff at Computer Clubhouses. The use of Scratch at Computer Clubhouses served as a model for other after-school centers demonstrating how informal-learning settings can support the development of technological fluency, enabling young people to design and program projects that are meaningful to themselves and their communities.

The MIT Media Lab's *Lifelong Kindergarten* group, led by Mitchel Resnick, and its Montreal-based consulting company Playful Invention Company, co-funded by the latter with Brian Silverman and Paula Bonta, together developed the first desktop-only version of Scratch in 2003. Since 2007, projects could be shared online with other users and the shared projects could be "remixed" (i.e. saved with changes) by other users.

Scratch 2 was released in May 2013. Since the introduction of Scratch version 2.0, custom blocks can be defined by a user within a project.

Mitchel Resnick created Scratch for the purpose of aiding young people (mainly for ages 8 and up) to learn programming.

In 2015, the Scratch homepage was updated with a new theme. As of January 17th 2016, only the homepage had been updated with this new theme and the rest of the site continued to use the old theme.

Fred Pg 31

Name	Class	Team	۱
Computer Date		Fechnology	SCRATCH imagine • program • share
Why was imagine - program - share Developed?		e research discusse	ed on line 11 of

Tell how the program changed over time. (you can make a time line if you wish)

the text tell the designers?

Give evidence or proof for all answers.

Lexile level 960 Standards RST 6-8.1, RI.6.1, RI.6.2

Next Steps