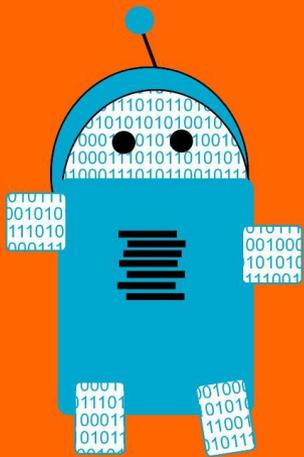


1.º Ciclo

Iniciação à Programação

João Torres e Miguel Figueiredo

Centro de Competência TIC
Escola Superior de Educação
Instituto Politécnico de Setúbal



1.º Ciclo

Iniciação à Programação



REDE
TIC e Sociedade



Inspiração?

Uma pessoa especial, com um “sentir” especial em relação à educação ...

Falling in Love with Seymour's Ideas

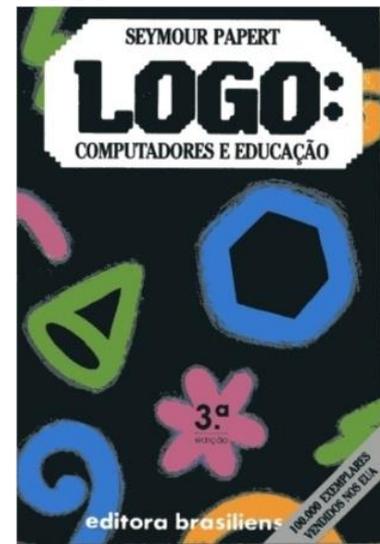
Mitchel Resnick
March 25, 2008

Mindstorms Over Time:
Reflections on Seymour Papert's
Contributions to Education
Research

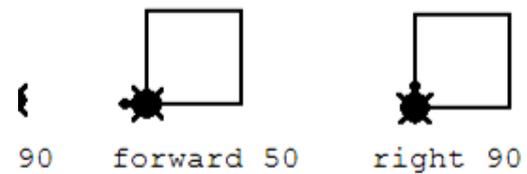
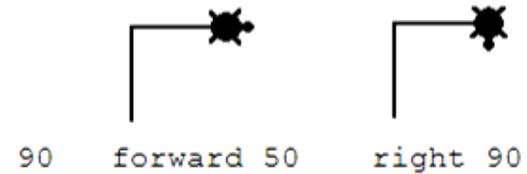
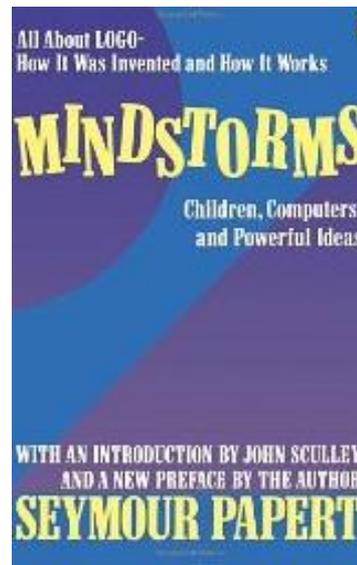
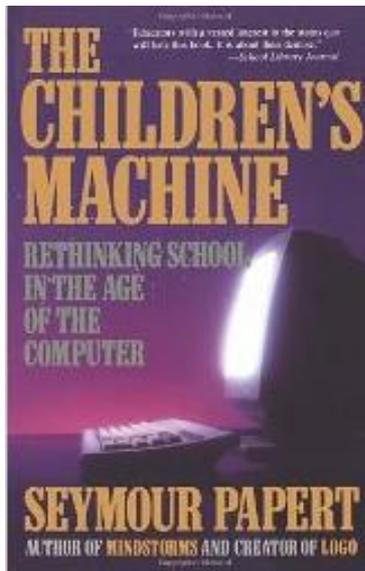
Presented at a Special Session of the
2008 American Educational Research
Association Annual Meeting



I am reminded of Seyn essay, *Gears of My C* wrote as the forew *Mindstorms*. In that she talks about the influen life. How he started playi before the age of two, a ences with gears had p model for thinking abou ematical and scientific ic But the most important is ...



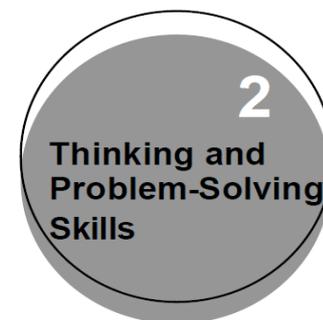
A linguagem LOGO



Do LOGO ao Scratch... porquê e como?



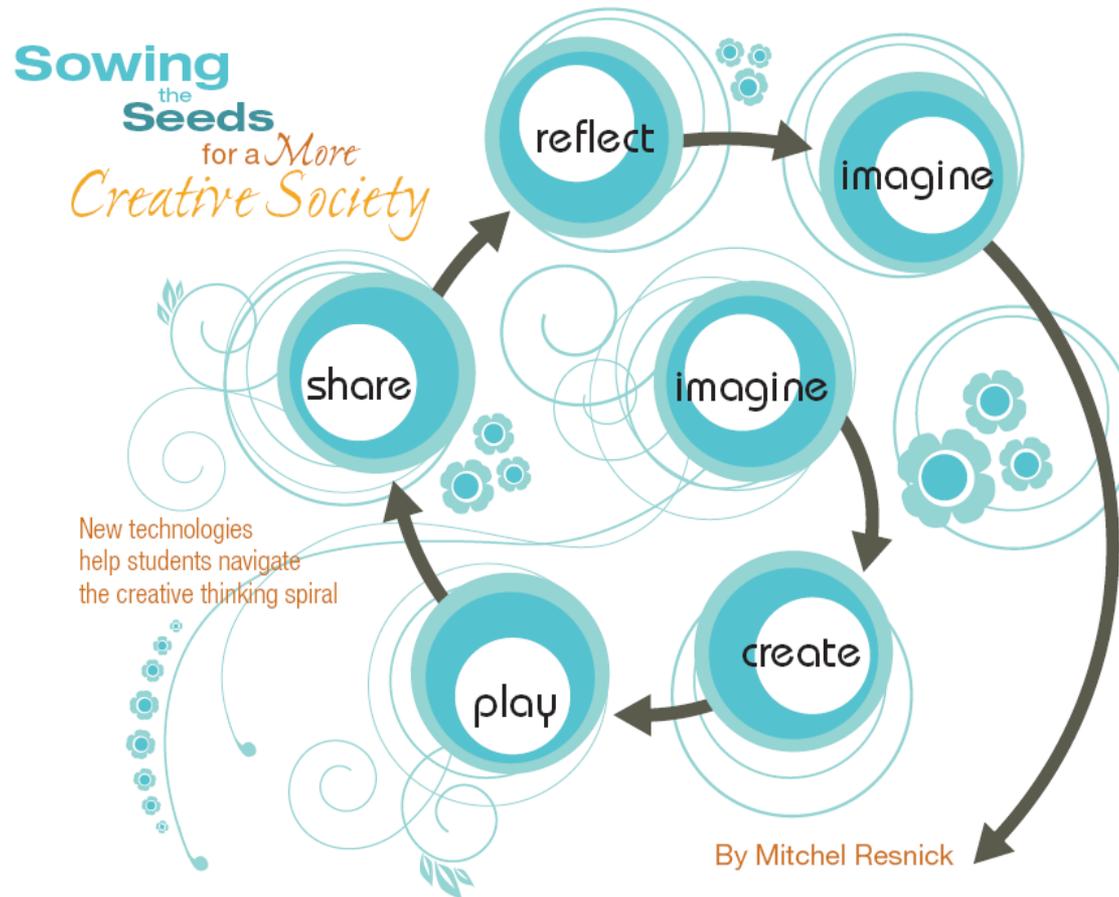
21st century Skills



Learn to code - Code to learn



Scratch em ação?



Sobre o Scratch

Alavanca ideias poderosas

Transforma conceitos (como as variáveis) mais tangíveis e manipuláveis

change score by 1

set score to 0

score

Ligação ao mundo real

Permite multiplas experiências



Partilha muito simples dos projetos

Basta colocar na Internet



SCRATCH

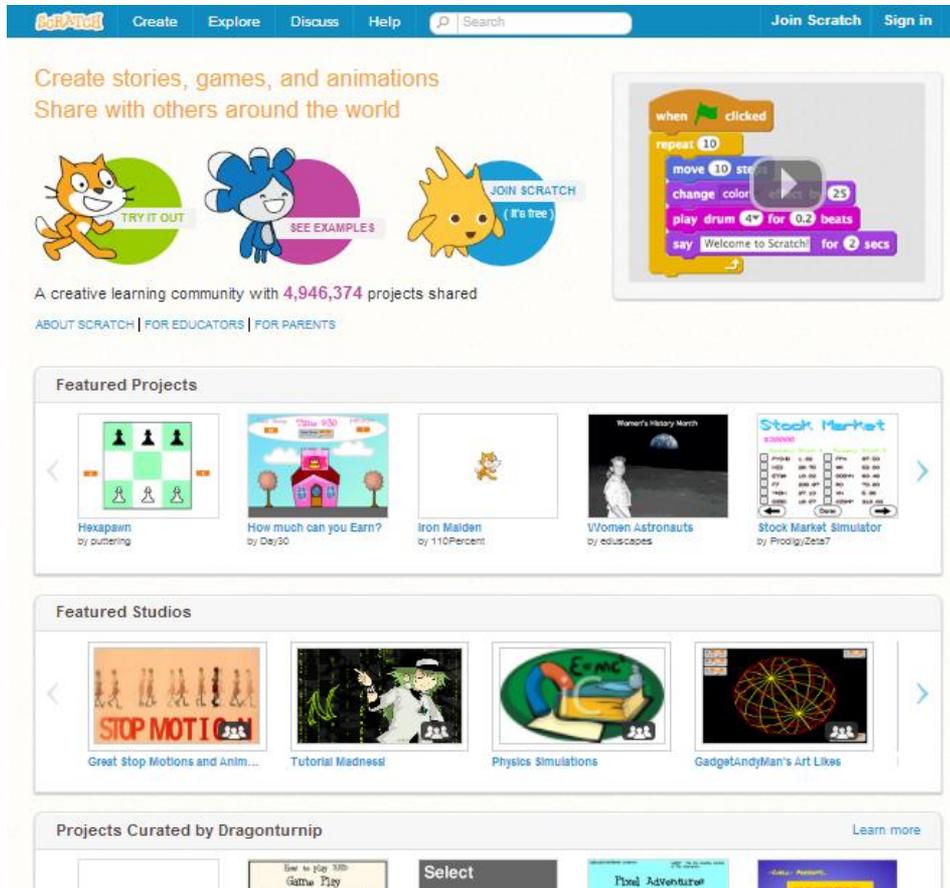
MIT Media Lab



Lifelong Kindergarten



Onde encontrar o Scratch?



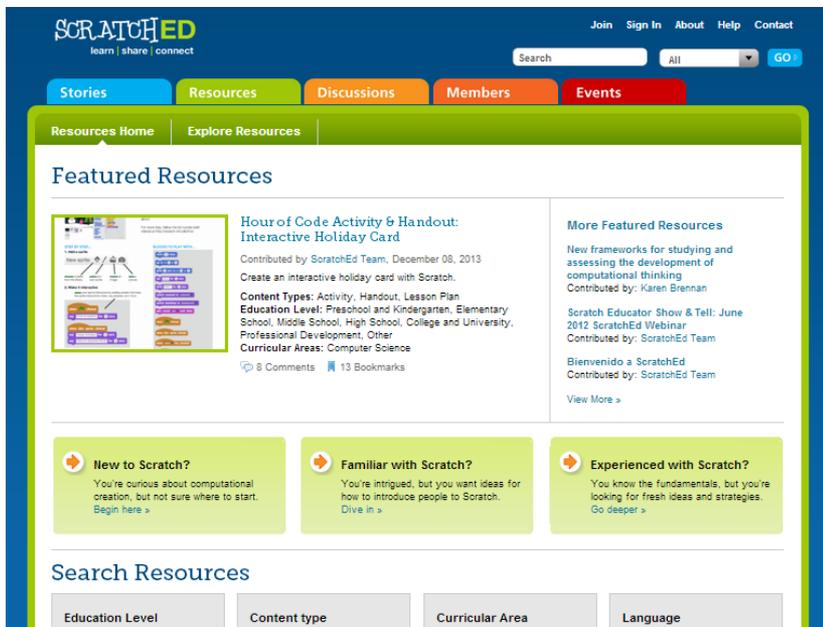
The screenshot shows the Scratch website homepage. At the top, there is a navigation bar with links for 'Create', 'Explore', 'Discuss', 'Help', a search bar, 'Join Scratch', and 'Sign in'. Below the navigation bar, the main heading reads 'Create stories, games, and animations' and 'Share with others around the world'. There are three cartoon characters: Scratch the orange cat with a 'TRY IT OUT' button, a blue character with a 'SEE EXAMPLES' button, and a yellow character with a 'JOIN SCRATCH (It's free)' button. A central code block preview shows a sequence of actions: 'when clicked', 'repeat 10', 'move 10 steps', 'change color by 25', 'play drum 4 for 0.2 beats', and 'say Welcome to Scratch! for 2 secs'. Below this, it says 'A creative learning community with 4,946,374 projects shared' and 'ABOUT SCRATCH | FOR EDUCATORS | FOR PARENTS'. The 'Featured Projects' section displays five project thumbnails: 'Hexapawn by puttering', 'How much can you Earn? by Day30', 'Iron Maiden by 110Percent', 'Women Astronauts by educapes', and 'Stock Market Simulator by ProdigyZeta?'. The 'Featured Studios' section shows four studio thumbnails: 'Great Stop Motions and Anim...', 'Tutorial Madness!', 'Physics Simulations', and 'GadgetAndyMan's Art Likes'. At the bottom, there is a 'Projects Curated by Dragonturnip' section with a 'Learn more' link and several project thumbnails.

<http://scratch.mit.edu/>

Bons recursos de Scratch?

<http://scratch.mit.edu/help/>

<http://scratch.mit.edu/discuss/>



The screenshot shows the ScratchEd website interface. At the top, there's a navigation bar with links for 'Join', 'Sign In', 'About', 'Help', and 'Contact'. Below that is a search bar with a 'GO' button. The main content area is divided into sections: 'Featured Resources' and 'Search Resources'. The 'Featured Resources' section includes a featured resource titled 'Hour of Code Activity & Handout: Interactive Holiday Card' with details about its contribution, content types, education level, and curricular areas. There are also three quick links for 'New to Scratch?', 'Familiar with Scratch?', and 'Experienced with Scratch?'. The 'Search Resources' section has filters for 'Education Level', 'Content type', 'Curricular Area', and 'Language'.

e

<http://scratched.media.mit.edu/>

Recursos em diversa línguas.

Um guia para o Scratch

Scratch Curriculum Guide Draft



- At SCRATCHED <http://scratched.media.mit.edu/resources/scratch-curriculum-guide-draft>
- A design-based introduction to computational thinking with Scratch
- Content Types: Activity, Assessment, Audio and Video, Curriculum, Handout, **Lesson Plan**
- Education Level: **Preschool and Kindergarten, Elementary School**, Middle School, High School, College and University, Professional Development, Other
- Curricular Areas: **Computer Science**, Engineering, Language Arts, **Mathematics**, Music, Science, Social Studies, Teacher Education, Technology, Visual Arts, Other

Bons recursos de Scratch?

The screenshot shows the EduScratch website. At the top left is the logo with the text "Divulgar Formar Partilhar". Below it is a description: "EduScratch é um projeto que visa promover a utilização educativa do Scratch através do apoio, formação e partilha de experiências na comunidade educativa". There are navigation links for "DGE | ERTE | CCTIC | ESE/IPS" and social media icons for Facebook, Twitter, and Google+. A menu bar includes "Início", "Acerca", "Notícias", "Recursos", "Forum", "Membros", "ScratchDay", "Ligações", and "Contacte-nos". Below the menu is a "Scratch Challenge!" banner with the text "SCRATCH CHALLENGE" and "imaginar · aprender · partilhar". To the right is a "Últimas notícias" section with a list of news items. On the left side, there is a search bar, a "Membros Online" section showing "Nenhum", and a login section with fields for "Utilizador" and "Senha", and a "Memorizar" checkbox. At the bottom of the main content area is a "Scratch Day 2014" banner with the Scratch cat logo and the text "May 17, 2014".

<http://projectos.esse.ips.pt/eduscratch/>

Recursos principalmente em português.

EduScratch CCTIC-ESE/IPS – em Portugal...

The screenshot shows the EduScratch website. At the top left is the logo with the text 'Divulgar Formar Partilhar'. Below it is a navigation menu with items: Início, Acerca, Notícias, Recursos, Forum, Membros, ScratchDay, Ligações, and Contacte-nos. A central banner features the 'SCRATCH CHALLENGE' logo and a Scratch Day 2014 announcement for May 17, 2014. On the right, there is a 'Últimas notícias' section with a list of recent events. On the left, there is a search bar and a 'Membros Online' section showing 'Nenhum' members. Below that, a statistics section lists: Visitas: 1404, Artigos: 394, Favoritos web: 8, and Acessos a Artigos: 333893. Social media icons for Facebook, Twitter, and Google+ are visible in the top right corner.

Objetivos:

Criar uma comunidade de educadores que usem o Scratch;

Encorajar os jovens (estudantes) a desenvolverem os seus projetos de forma autónoma.

SAPO Scratch – em Portugal...

O SAPO Scratch vai ser descontinuado a partir de 31 de outubro.
Descarreguem os trabalhos que queiram guardar até essa data.
Poderão continuar a usar o Scratch no site do M.I.T. em scratch.mit.edu

SAPOKIDS

O meu SAPO Scratch ENTRAR >>> Descarrega o SAPO Scratch DESCARREGAR >>>

Scratch Projetos Galerias Sobre O meu Scratch

Pesquisa OK

Junta os blocos
Cria jogos, histórias e animações
Partilha o que criaste na net!

Últimos projetos VER MAIS >>>

Ándré e Gonç... por andreconeale
Claudia projeto8 por ClaudiaScratch
Licia e Bruna 8ºB por licia bruna_cupcake

Noticia
Aprende como se programa em Scratch! Vê os vídeos e as novas personagens que te vão ajudar a brincar e criar como o Scratch. Vê mais aqui.

Etiquetas populares VER MAIS >>>
4j, Arte, Música, animation

Objetivos:

Criar uma comunidade de educadores que usem o Scratch;

Encorajar os jovens (estudantes) a desenvolverem os seus projetos de forma autónoma.

EduScratch CCTIC-ESE/IPS - exemplos de projetos...



Animação Bolt

<http://kids.sapo.pt/scratch/projects/alison/2546>

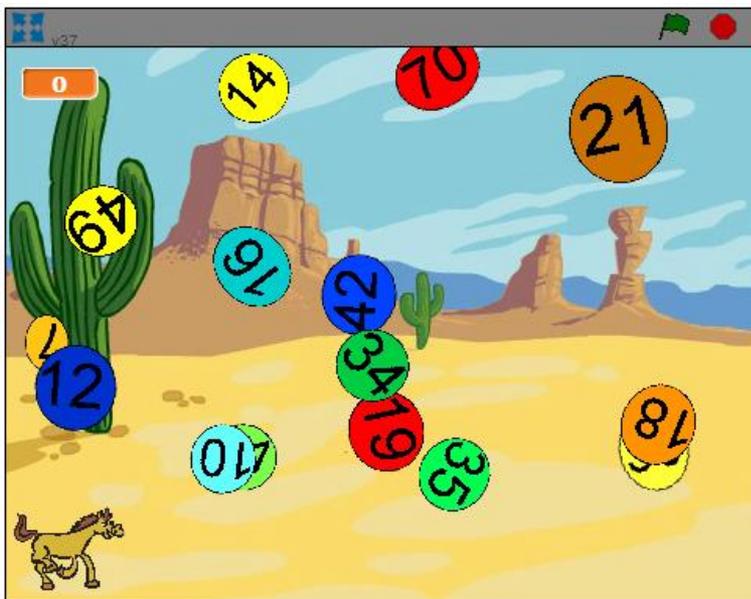
EduScratch CCTIC-ESE/IPS - exemplos de projetos...



Cartão de Natal

<http://kids.sapo.pt/scratch/projects/teresamar/2983>

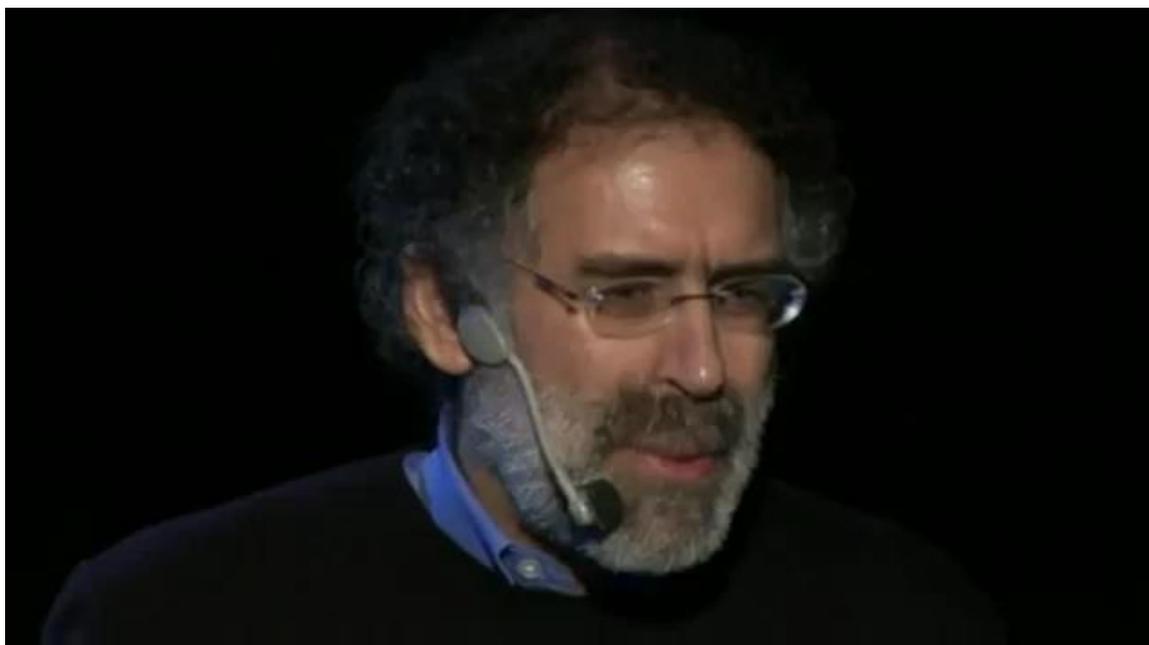
EduScratch CCTIC-ESE/IPS - exemplos de projetos...



Múltiplos de 7

<http://kids.sapo.pt/scratch/projects/clauidblue/928>

Ideias poderosas: Variáveis

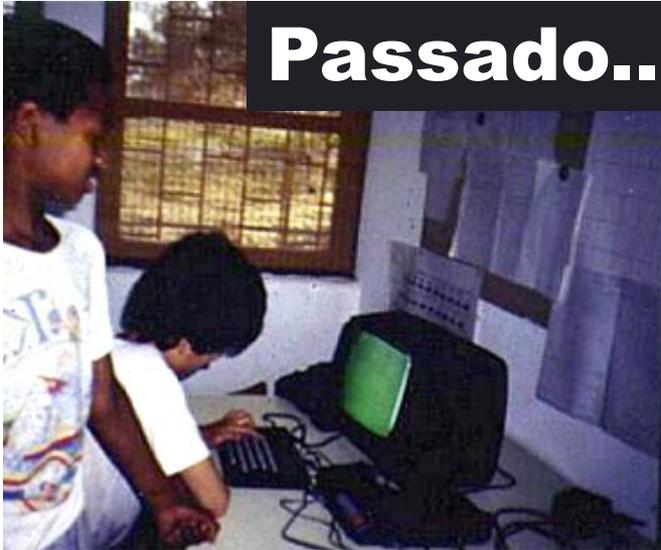


http://www.ted.com/talks/mitch_resnick_let_s_teach_kids_to_code

de 10:40 a 12:46 (mas deve ser vista toda a conferência)

Vamos lá pensar...

Passado...



Presente ...



... Futuro?

Que projetos vais fazer?

Obrigado!



João Torres
Miguel Figueiredo