

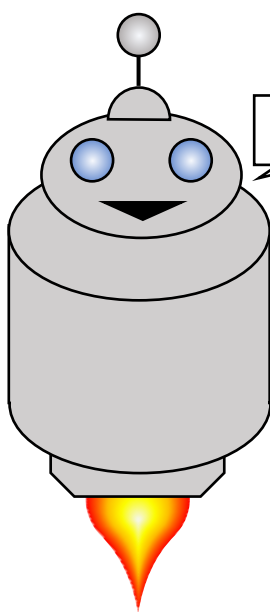
Gamification of Dr. Scratch

An important aspect of gamification is the narrative. For a program like Dr. Scratch a good way to use a narrative could be give the users a character they care for.

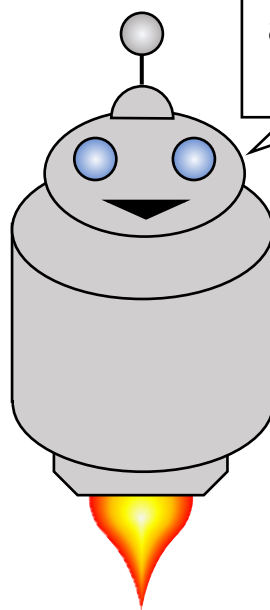
A matching character for IT could be a robot. This robot could change with how the users use Scratch for programming. So, for example if user interactivity is high the robot could interact more efficiently with the users.

There could be one trait per criteria. So, the robot would adapt to the user's skill level. In this way the user would have a direct feedback on how his usage of Scratch would change a representation of a program (the robot).

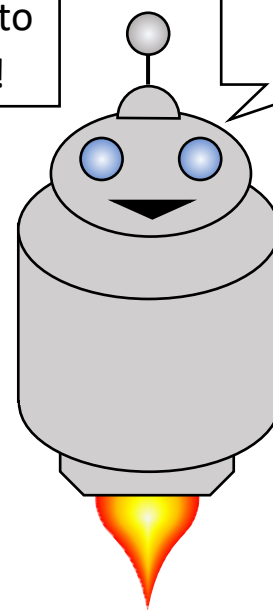
Example for differed levels of "User Interactivity"



Level 1



Level 2



Level 3

Narrativ

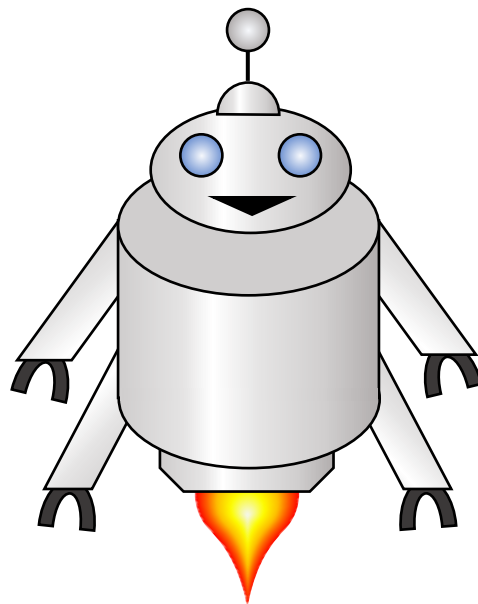
As a narrative it would be enough to have a robot that asks for help. If you would like to extend the narrative the robot could be a “robot doctor”. This robot doctor would fix other robots. And each Scratch program that is entered corresponds to one fixed robot. The levels of Dr. Scratch would then influence the behaviour of the fixed robot.

In this case the different criteria of Dr. Scratch can be actively experienced, and the users would have a direct feedback about their skill level. A fixed that is badly synchronized would have problems with walking for example.

A robot with low Flow Control would have a hard time performing its tasks, while one with a high flow control would easily solve every task it needs to solve.

The same could be applied to the other criterias.

Dr. SC-R4TCH – Robotics Doctor



Additional levels of Gamification with personal robots

If a user would have an account, you could even add a levelling system for the different skills/criteria. So, the robot would change after enough Scratch programs meet the right specifics.

You might want to consider cosmetic changes for the personal robot of the user. Those cosmetic changes could be gained by reaching new levels. Some simple ways to achieve this would be different skins. In this way, the users are rewarded for their work on Scratch.

Skill levels

Flow Control



Abstraction



Examples for different skins for the robots

