



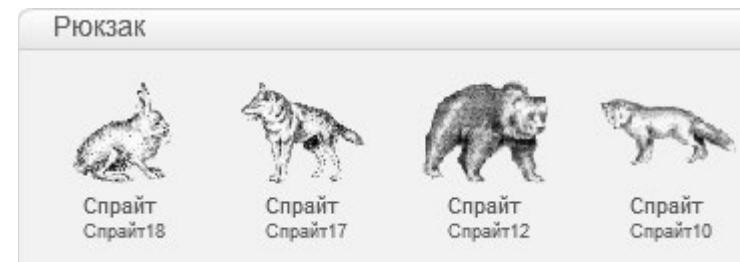
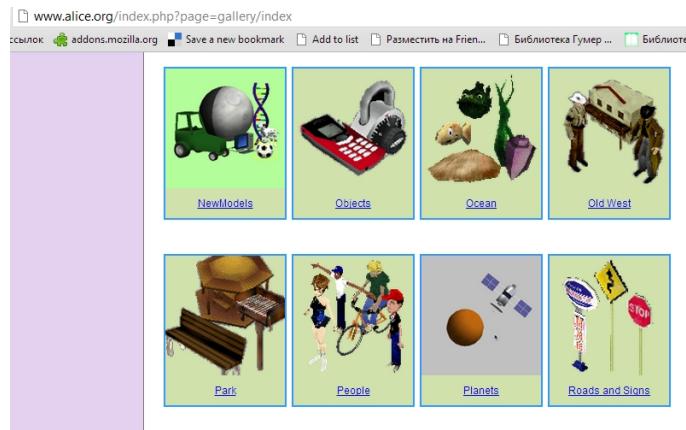
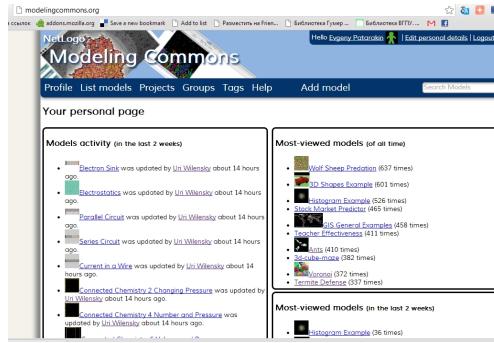
# Дополненная карта вычислительной грамотности

Евгений Патракин

# Как мы вместе делали книгу



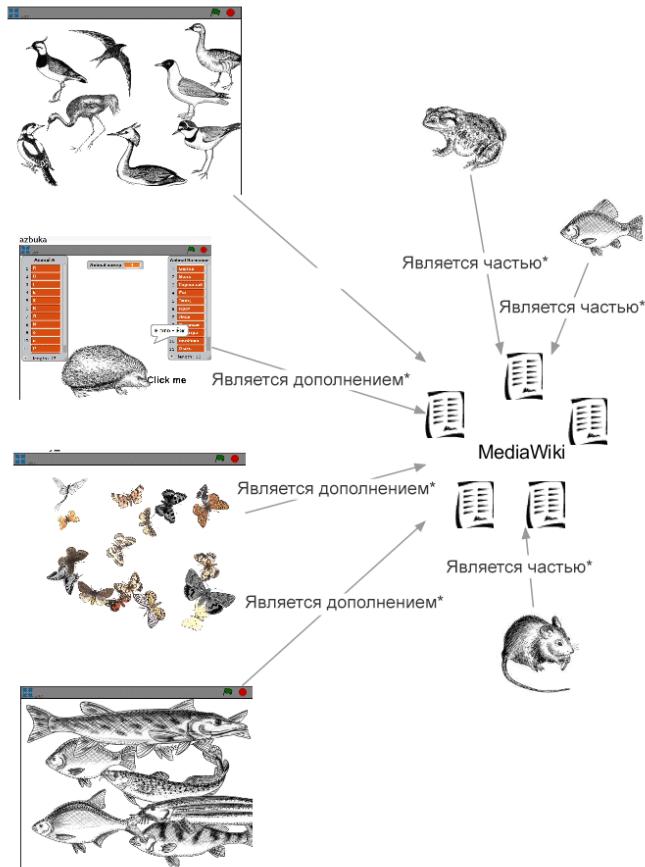
# Alice, Codu, Netlogo, AgentCube и многие другие – везде совместная деятельность и ремиксы



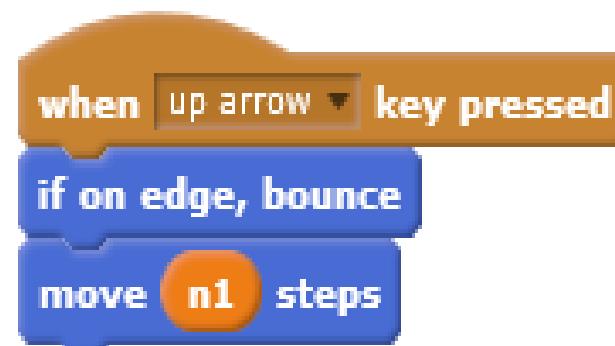
# Ремиксы в Scratch ≈ 30 % всех работ, и это предмет гордости



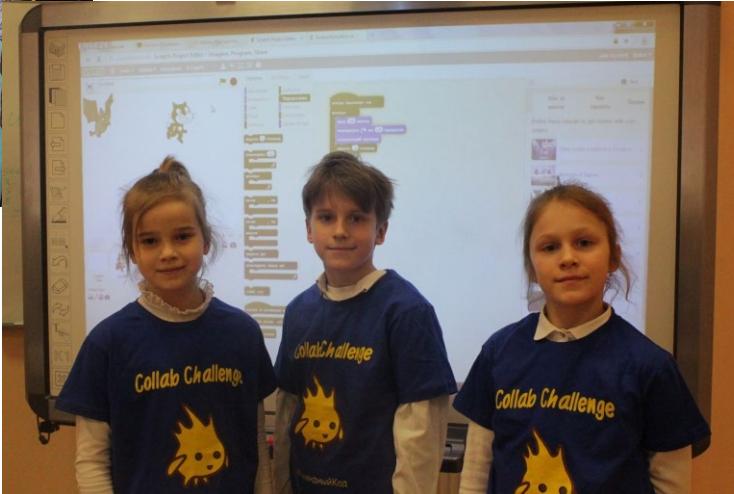
Повторное использование не только в тексте программ, но и в вики. Это умение, которое переносится из одной среды в другую



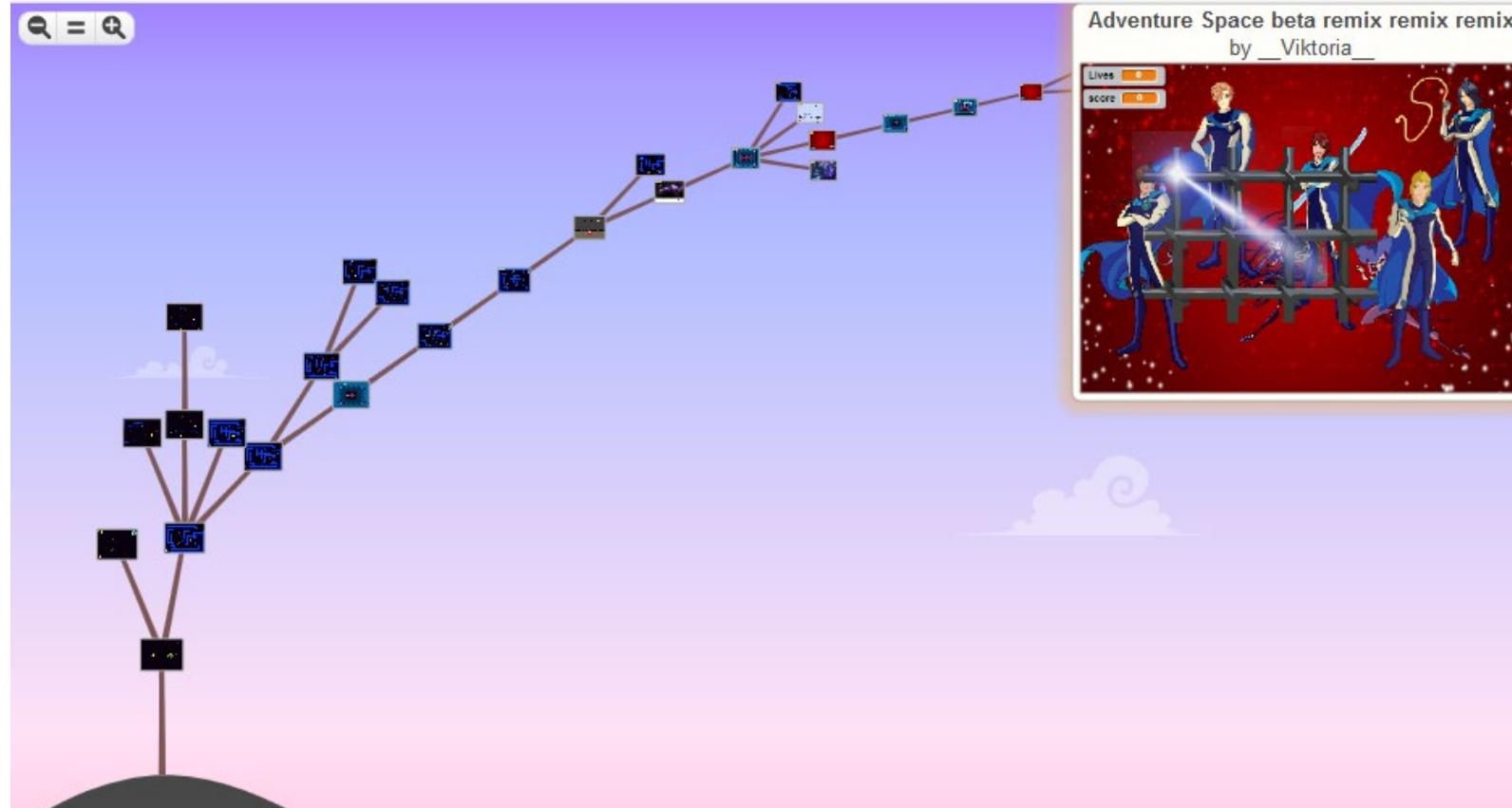
```
<scratchblocks>
when [up arrow v] key pressed
if on edge, bounce
move (n1) steps
</scratchblocks>
```



# Collab Challenge 2018



У детей гораздо больше практики совместных действий, чем у преподавателей



# Делать Ремиксы образовательных практик

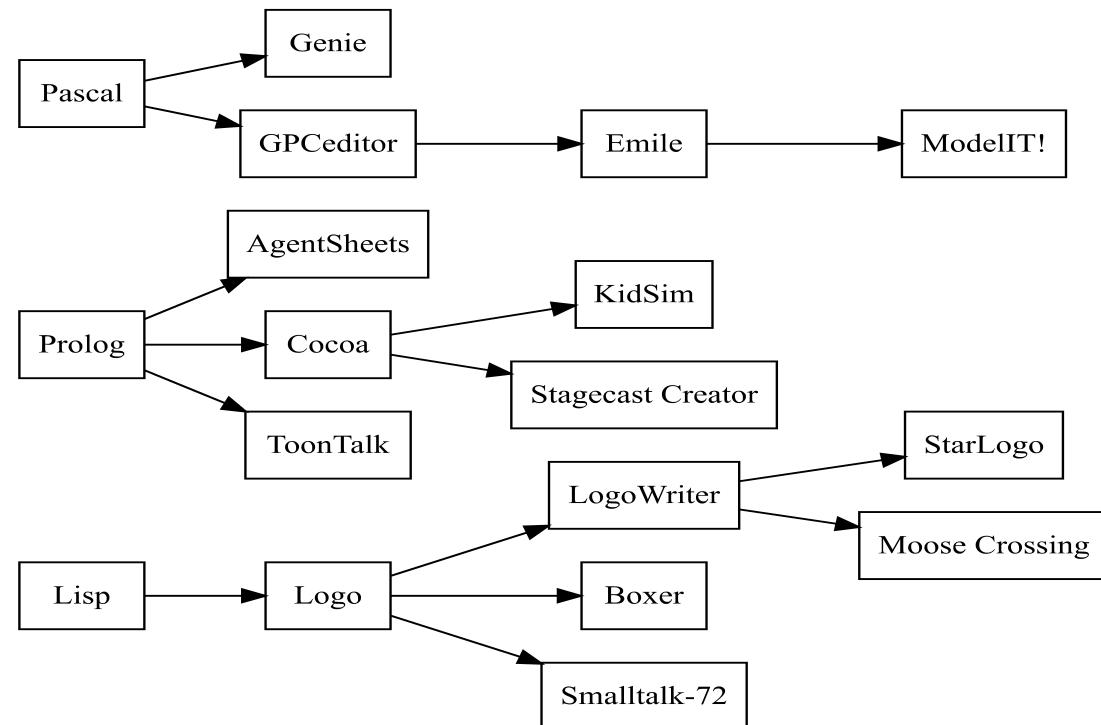


# Коллекции образовательных практик в стиле HowTo – Как сделать ... ?

- How to create and use a teacher account?
- How to register participants?
- How to create a studio to work on a shared project?
- How to invite members of your team to the studio?
- How to create a new sprite for a new character?
- How to make a character move on the screen?
- How to calculate how many steps a character made?
- How to make characters interact?
- How to create a project remix?
- How to use a remix tree?
- How to make a correct description of a project?
- How to evaluate code quality independently?
- How to use Dr. Scratch?
- How to evaluate the jointness of activities?
  - <http://letopisi.org/index.php/Scratch/HowTo/Hackathon>

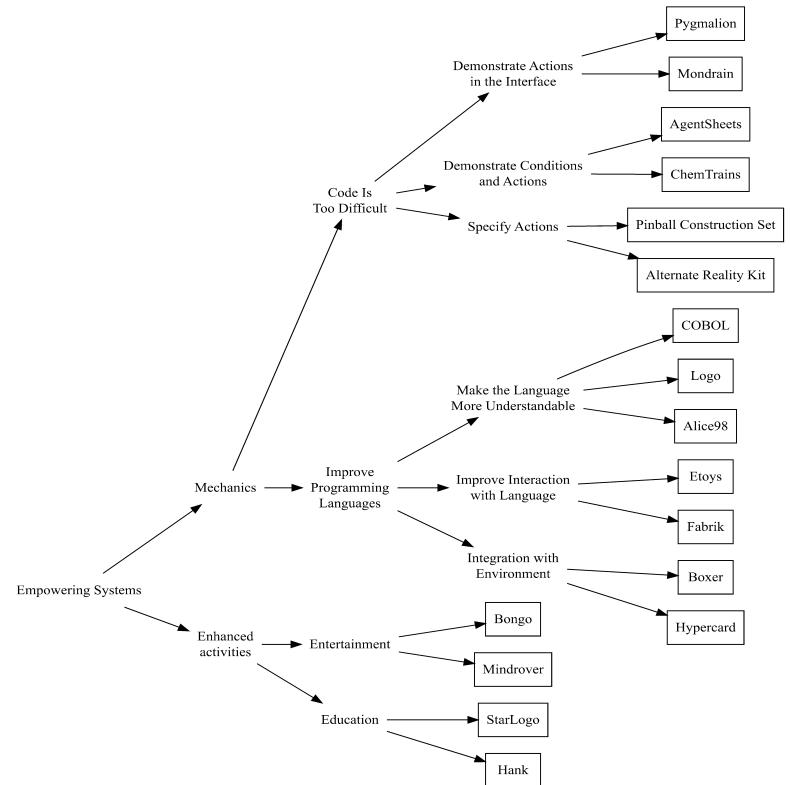
# Совместные таксономии сред обучения

[http://letopisi.org/index.php/Taxonomic sandbox 1](http://letopisi.org/index.php/Taxonomic_sandbox_1)



# Различные подходы к обучающим средам

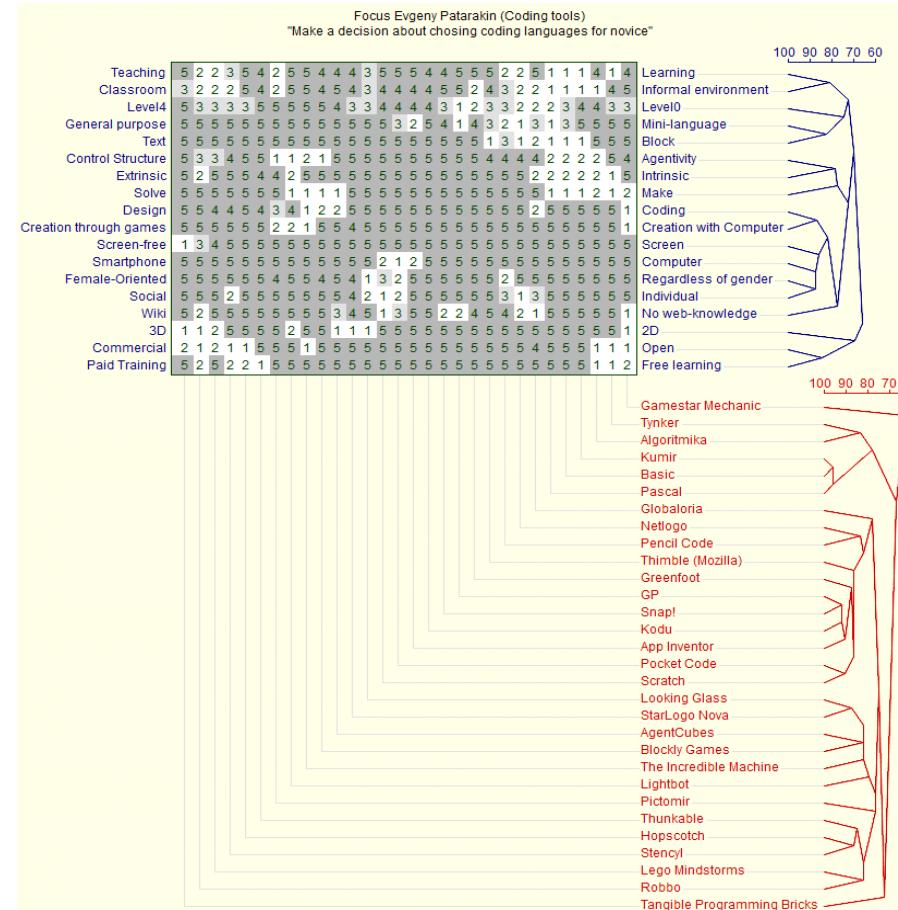
[http://letopisi.org/index.php/Taxonomic sandbox 2](http://letopisi.org/index.php/Taxonomic%20sandbox)



# Использование решетки персональных конструктов

[http://letopisi.org/index.php/Taxonomic sandbox 3](http://letopisi.org/index.php/Taxonomic_sandbox_3)

- The construct clusters seem to split into four main groups. The top group comprises constructs "Teaching--Learning", "Classroom--Informal environment", "Level4--Level0", "General purpose Language--Mini-Language", "Text--Block" indicating the link between "Learning", "Informal environment", "Level0", "Mini-Language" and "Block", as against "Teaching", "Classroom", "Level4", "General purpose Language" and "Text". The second main cluster is more interesting. There is a connection between "Intrinsic Motivation", "Agentivity" and "Making" against "Extrinsic Motivation", "Control Structure" and "Problem Solving". The third construct cluster indicating the link between "Coding", "Creation with Computer", "Regardless of Gender", "Computer" and "Individual" against "Design", "Creation through games", "Female-Oriented", "Smartphone" and "Social". The last fourth cluster indicating the obvious link between "Open Software" and "Free learning" against "Commercial software" and "Paid training".



The element clusters seem to split into four main groups also. The top group comprises elements "Kumir", "Basic" with "Pascal" and "Algoritmika" with "Tynker". In the second cluster there is a tight connection between "Scratch" and "Pocket Code" and they are linked with "GP", "Snap!", "Kodu" and "App Inventor". The third element cluster indicating the link between "Looking Glass" and "Starlogo Nova" connected with "Agents Cubes" and "Blockly Games". The fourth element cluster comprises "Lego MindStorms", "Robbo", "Stencyl", "Hopscotch" and "Thunkable". "Gamestar Mechanic" and "Tangible Programming Bricks" connected with the network of elements with weak links.

# Коллекция различных образовательных и профессиональных стандартов

- ACRL Information Literacy Competency Standards
- Assessment and Teaching of the 21 Century Skills
- International Society for Technology in Education Standards
- Technological and Engineering Literacy assessment
- Russian Federal State Educational Standards – ФГОС
- O\*NET

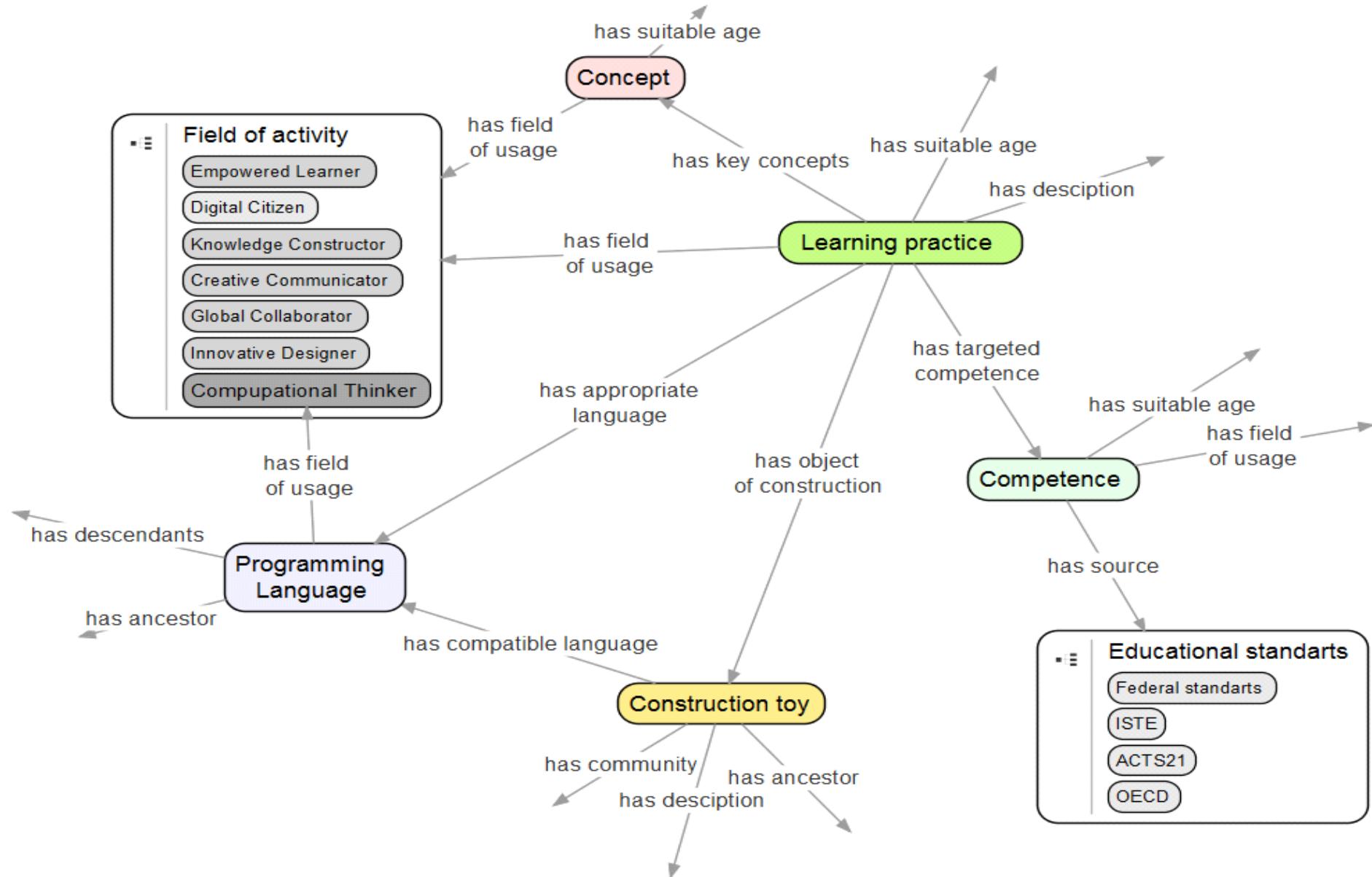
# Онтология вычислительной грамотности

[http://letopisi.org/index.php/Taxonomic sandbox 4](http://letopisi.org/index.php/Taxonomic_sandbox_4)

- Таксономии образовательных практик
- Таксономии сред обучения
- Таксономии стандартов
  
- { |
- | {{#ask:[[Category:ISTE Standards]] [[Source\_of\_Competence::ACRL]] | format=ul}}
- | {{#ask:[[Category:ISTE Standards]] [[Source\_of\_Competence::TEL]] | format=ul}}
- | }

# Smwiki.mgpu.ru

- <http://smwiki.mgpu.ru/w> :
- Требования стандартов
- Понятия
- Среды программирования
- Конструкторы
- Учебные практики



# И теперь мы можем совмещать представителей разных категорий на общей карте

```
{{#ask:  
[[Category:Construction toys]] OR [[Category:Programming language]]  
[[Year of creation::+]] |?Year of creation |sort=Year of creation  
|order=descending |format=timeline |timelinebands=YEAR  
|timelineposition=end |limit=100 }}
```



И мы можем вместе действовать в вики и  
видеть историю своей деятельности

