Artificial teacher

Author: Alex Ivanov Tsvetanov

Mentors: Assoc. Prof. Zlatogor Minchev

Assist. Prof. Emil Kelevedzhiev

Sofia High School of Mathematics Sofia, Bulgaria

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Introduction

The core aim of our project is to create system that combines these techniques and to build "artificial teacher" that combines best practices in organizing training so that it will be interesting, useful and much easier for the students. The most important part of our project is to fertilize students, showing them that their subjects is not as difficult as sound

Why it is useful?

It's useful ...

- for self-study
- for modernizing education

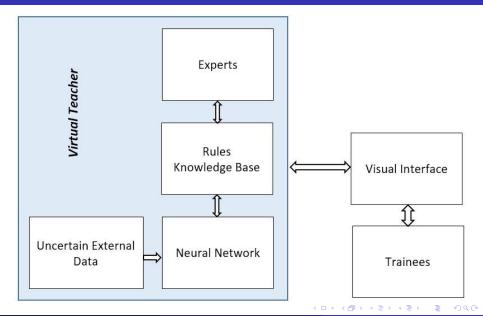
It allows young people ...

• to touch new technologies

It can ...

• provoke the interest of young people in the subjects

Architecture



Innovations?

- It combines 2 new technologies Machine learning/Artificial intelligence/Neural Network & Virtual Reality
- Learning is closer to the new generations
- Learning is more interactive

What is ready?

- Neural network API based on statistics
- Prototype of user interface

What is next?

- Improvement of API (it will start to use "expert system")
- Finishing 3D human model
- Building library for voice/text communication with students
- Finishing web-based user interface
- Building API-based mobile application
- Building VR application

Live prototype demo



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Resources

- Artificial Intelligence: A Modern Approach, 3rd Edition, Prentice Hall, 2010.
 Stuart Russell & Peter Norvig.
- Virtual objects seem totally real.
- Amelia. http://www.ipsoft.com/amelia/.
- The Future Of Chatbots And Artificial Intelligence.
- Your DNA Avatar What Happens When Artificial Intelligence Meets Cutting-Edge Genetics?.
- GNU Compiler Collection. https://gcc.gnu.org/.
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Questions



Thank you for the attention!