



## **Information and communication technologies in geography education in the 21-th Century**

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In 2013 I attended a course on the Introduction to the Use of Spatial Thinking and Geoinformation (in geography and related subjects) organized by the European Association of Geographers. This course have helped me to realize what will be tomorrow's classroom. We can change education of geography in the classroom by using the following information technologies:

### Envision in classroom

This software solution provides interactive environment for the whole learning experience of students. Envision helps enhance the quality of teaching and also keeps children engaged. An advantage of Envision is that it integrates ICT in education in a natural and easy to implement way improving the quality of education by making it a more positive experience to all involved parties.

It is easy to use by teachers, because it provides a flexible way to present lessons. Educational software system supports collaborative learning giving teachers powerful and easy-to-use tool for teaching and learning. It gives students opportunity to take part actively in the lessons and develops team working and collaboration skills. This software is suitable for very different topics in the classroom - geographical location, boundaries, climate, political map, etc.

Teachers benefit by easily engaging the full attention of children, taking advantage of best practices and exchanging experience with their colleagues. Children use their mice to interact with the system and can answer questions as individuals or as a group. They solve puzzles, categorize objects/concepts/ or locate objects on a map, type answers using a virtual keyboard. During the lesson Envision tracks the behavior of each child.

### Interactive classboard

The Interactive StarBoard Software helps better acquiring and understanding of the new academic information for the students. Children have great interest and show greater independence, which helps them for easier learning.

The use of educational games in teaching Geography by this software helps to strengthen the individual work, stimulating their independent thinking and competitive nature. It helps mastering the material and acquisition of knowledge and skills in Geography in a fun environment.

Using interactive classboard and creating different products such as diagrams, maps, drawings will enhance students' learning abilities, creativeness and knowledge on the environmental concepts and theories such as sustainable development and eco-thinking. Visualization of new learning content allows for short time students to receive more information

### Geomedia and GIS

Geo-media is the visualization of information from different media sources and is concerned with digital content and its processing based on place, position and location. Geoinformation could be used to create attitude concerning contemporary problems – environmental, demographic and economic.

21st century school education needs to include geo-media into daily teaching and learning.

Students use ArcGIS to create their own interactive maps related to the Bulgarian geography education and in that way they develop their spatial thinking skills.

Using different techniques and approaches including geoinformation, geomedia, interactive classboard supports green thinking and behavior of students through involving them actively in studying environmental problems and issues. Students can easily understand human impacts and the management issues which arise in conserving the earth's unique ecosystems.