

AIBLE-HELIOS®: towards a playful learning of astronomy

playful learning / augmented reality / astronomy / education / teaching



CONTEXT

Recent technological advances have changed the educational landscape in the last few years. Among these technologies in education, there is a growing interest in augmented reality which, in its own way, changes and improves teaching methods. Indeed, augmented reality offers a playful aspect that will capture the attention and motivation of students. The visual and practical aspect of this learning also allows a better understanding and memorization of the given information.

DESCRIPTION

Nowadays, astronomy teaching is not easy because of the complexity of concepts and the low effectiveness of existing educational aids. The PERSEUs laboratory at the University of Lorraine has developed an innovative digital prototype, called AIBLE-HELIOS® (Augmented and Inquiry-Based Learning Environment - Hybrid Environment to Learn the Influence Of the Sun in the solar system), designed for simple and playful learning of the solar system and its functioning. It exploits the augmented reality to integrate virtual objects into the real world and a tangible interface that allows the user to interact with digital information through the physical environment. Thanks to AIBLE-HELIOS®, astronomy courses become more interactive: the student can manipulate objects or presented scenes and scroll at his own pace. It is ergonomically and pedagogically designed to be used by children from 8 years old.

COMPETITIVE ADVANTAGES

- It allows learning in a playful way
- It allows to visualize virtual objects into the real world: facilitates the perception of the solar system and the understanding of astronomical phenomena
- It allows interaction with astronomical objects via the tangible interface: children are free to use their own mental processes and perform intuitive manipulations



Markets & applications

Education - schools and general public:

- ❖ Playful learning of astronomy
- ❖ Mediation of scientific culture (museums, observatories, etc.)



Development stage

The prototype is validated - some functionalities remain to be developed - the hardware supports are ready to be manufactured



Research team

Laboratory "Psychologie Ergonomique et Sociale pour l'Expérience Utilisateurs" (PERSEUs) - University of Lorraine



Intellectual property

Software and trademark registered



Target partnership

Finalization of the development and software licensing

CONTACT-US

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