

Submission of Abstract: Please use NORMAL style for all text in the Abstract Template

Abstract title (Use sentence case)	Collaboratories: Dealing with technical, educational and linguistic barriers in collaboration
Type of Presentation	Paper <input checked="" type="checkbox"/> Short Paper <input type="checkbox"/> Panel <input type="checkbox"/> Workshop <input type="checkbox"/>
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Keywords (please select 5 from list on website)	collaboration, learning styles, research, sites of learning , roles and relationships .
Audiovisual requirements (PCs will be the standard computer)	Computer <input type="checkbox"/> Data projector <input checked="" type="checkbox"/> Other <input type="checkbox"/> Please specify: 2 PCs with 2 projectors
What is the main message of your contribution with respect to the workshop's title?	This is an invited keynote presentation
Abstract (400 – 600 words)	<p>In spite of the fact that many schools and children are now properly equipped and connected into huge virtual network, intensive and efficient collaborative learning is still more dream and vision than reality. We all believe in great power and challenge of ICT in making such creative collaboration possible, however we lack good examples and deeper understanding of this phenomenon – most probably due to serious technical and management problems, language and cultural problems, and also a shortage of innovative ideas, inspiring environments, efficient tools (and maybe also a shortage of good will to learn about other cultures and respect them...).</p> <p>The CoLabs project aims at this topic. Our goal is to design and develop virtual laboratories for cooperation and collaborative learning – collaboratories. We want to provide groups of children – either in one classroom or far apart, even living in different language regions – with opportunities to work and learn together. We are studying different forms of collaboration</p>

	<p>and their possible contribution to the learning processes.</p> <p>Within the project we are making use of the Imagine environment as far as it allows us (beside all “traditional” features of a powerful computer environment for learning) to build interactive on-line interfaces for collaborative explorations. Imagine provides a modern version of well-known Logo language with multiple objects, parallel independent processes and intuitive support for developing Internet applications. We make use of Imagine in different roles, namely as:</p> <ul style="list-style-type: none"> - an authoring tool for building professional interfaces for on-line cooperative learning, - an environment in which children and their teachers can develop, explore, modify and use different small activities (microworlds) and share them synchronously or asynchronously. <p>To facilitate such large communication and collaboration, we have been building an educational portal – a CoLabs portal as a space for working together, sharing resources, ideas, presenting children’s work and supporting their teachers.</p> <p>One of the major tasks of the project has been to identify – and solve if possible – problems that hinder children from working together in spite of the distance, different languages and cultures. We are tackling three groups of problems: technical, educational and linguistic.</p> <p>Within the CoLabs project we are developing several computer environments for exploiting and better understanding the concept and different roles of collaboration. In my presentation I will illustrate two of them: Creative Writing for early school years and Visual Fractions, an open authoring environment for building and discovering essential concepts and relations in mathematics for 8 to 12 years old children. This is our attempt to build a kind of new culture in modern tangible mathematics education by providing teachers and children with highly interactive sets of visual building blocks which can be combined and explored by a group of children standing in front of a common learning space – an interactive white board or a screen of a computer.</p>
<p>Short biography of presenter (maximum 50 words).</p>	<p>Ivan Kalas is an associate professor at Comenius University, Bratislava. He is a member of the steering committee of the national Slovak InfoAge project, which has already integrated more than 1500 schools in Slovakia. Ivan is a head of the Department of Informatics Education, which is responsible for pre-service education of future teachers. He is author or co-</p>

	<p>author of several books and textbooks. Ivan represents Slovakia in IFIP TC3 Committee for education. In 2000, he worked as visiting researcher at the Institute of Education in London. He has read several invited lectures in UK, Brazil, USA, Hungary, Poland, Bulgaria, Czech Republic and Portugal.</p> <p>Ivan is a co-author of SuperLogo: Learning by Developing, which was published by Logotron, UK in 1998 and has been translated to two other languages. He is also a co-author of educational software environments, which are being used in more than 20 countries. These educational tools aim at developing creativity, logical and algorithmic thinking, communication and co-operation. Together with Andrej Blaho and Peter Tomcsanyi they developed SuperLogo and in 2001, together with Lubo Salanci they released Imagine, new generation of computer tool for education.</p>
<p>What are the themes, relevant to the scope of the workshop, that you think should be discussed?</p>	<p>collaborative learning, supporting learning processes with proper creative software environments, identifying technical and educational obstacles in collaboration through language and cultural frontiers</p>