



INESC-ID
Instituto de Engenharia
de Sistemas e Computadores
Investigação e Desenvolvimento
em Lisboa

Rua Alves Redol, 9
1000-029 Lisboa Portugal
Tel. +351.213100300
Fax: +351.213145843
Email: info@inesc-id.pt

L²F – Spoken Language Systems Laboratory eCIRCUS – Voices for Synthetic Characters



eCIRCUS aims to develop novel conceptual models and innovative technology to support social and emotional learning through role-play and affective engagement for Personal and Social Education involving complex social situations.
www.e-circus.org

The L2F - Spoken Language Systems Laboratory is a participant in the European eCIRCUS project. Its main task is to provide synthesized voices for the synthetic characters of the FearNot! demonstrator. FearNot! provides children with various scenarios about bullying behaviour, that promote engagement and believability with synthetic characters in a social interaction

The child user interacts with one physical bullying scenario and one relational scenario. After the introduction of the characters, school and situation, users view the first bullying episode, followed by the victimised character seeking rescue in the school library, where it starts to communicate with the child user. Within the initiated dialogue the user selects an advice from a list of coping strategies (shown as a drop down menu). The user also explains his/her selection and what he/she thinks will happen after having implemented the selected strategy, by typing it in.

The next episode then starts. The content of the final episode depends on the choices made by the user concerning the coping strategies: Paul, the bystander in the physical bullying scenario, might act as a defender for John (the victim), in case the user has selected a successful strategy, i.e. "telling someone"; or Martina (the bystander) might offer Frances (the victim) help. However, if the user has selected an unsuccessful strategy, i.e. "run away", the victim rejects the help in the final episode. At the end of the scenario, a universal educational message is displayed pointing out that "telling someone you trust" is usually a good choice. This universal message had to be incorporated as all teachers had strong preferences for children to finish the interaction with a positive feedback message.

More information is available by email to info@l2f.inesc-id.pt or directly from the website <http://www.l2f.inesc-id.pt/>.

eCIRCUS (Education through characters with emotional intelligence and role playing capabilities that understand social interaction) intends to further develop the FearNot! technology and carry out on a number of large-scale longitudinal psychological evaluations in schools using both the FearNot! software and the purpose built ORIENT software to be developed in the course of the project.

L²F: eCIRCUS – Voices for Synthetic Characters

Main researchers (L2F)

Luís Caldas de Oliveira
Christian Weiss
Carlos Mendes
Sérgio Paulo
Luís Figueira

Terminology

Synthetic characters: A synthetic character is an autonomous character driven by an intelligent architecture whose interactions are not pre-scripted.

Emergent narrative: Emergent narrative builds upon the model of improvisational drama rather than authored stories: an initial situation and characters with well defined personalities and roles produces an unscripted interaction driven by real-time choices.

VICTEC (Virtual ICT with Empathic Characters) a European framework V project was carried out between 2002-2005. The project considered the application of 3D animated synthetic characters and emergent narrative to create improvised dramas to address bullying problems for children aged 8-12 in the UK, Germany and Portugal. Like VICTEC, eCIRCUS is to support social and emotional learning through role-play and affective engagement for Personal and Social Health Education (PSHE) involving complex social situations. The VICTEC characters had no voice: they communicated by textual messages. In eCIRCUS the virtual characters are able to speak to each others.

Bullying

Bullying behaviour has generated research interest among psychologists and educationalists over the past 10-15 years because of the amount reported to take place and the negative consequences for its victims.

Bullying involves a wide range of behaviours which have been divided into a number of categories by researchers. Direct physical bullying includes actions such as being hit, kicked or punched, and taking belongings. Verbal bullying involves name calling, cruel teasing, taunting or being threatened. Finally, relational or 'indirect' bullying refers to behaviours such as social exclusion, malicious rumour spreading, and the withdrawal of friendships.

Research has also identified a number of different roles in bullying, including the victim, bully, reinforcer of the bully, assistant of the bully, defender of the victim and outsider.

Many different intervention initiatives have been tried in attempts to counteract and reduce bullying problems in schools. Examples include the whole-school approach to bullying, the no-blame approach for the bully and class activities such as 'circle time' and peer mediation techniques. However, all of these strategies have reported limited long-term success rates. VICTEC aimed to provide a novel, innovative approach to help deal with bullying problems in a fun and exciting environment.

More Information

About **L²F**: by email to info@l2f.inesc-id.pt or website <http://www.l2f.inesc-id.pt/>.
About **eCIRCUS**: <http://www.e-circus.org>