Gamification of prosocial learning for increased youth inclusion and academic achievement

ProsocialLearn, a 36-month (January 2015 - December 2017) project funded by the European Union, will deliver a series of disruptive innovations for the production and distribution of prosocial digital games that engage children, as well as stimulate technology transfer from the games industry to the educational sector.

Prosocial games genre
The ProsocialLearn project will create a new digital gaming genre that focuses on helping children to acquire prosocial skills necessary for positive relationships, team working, trustworthiness and emotional intelligence (EI).

Prosocial games market
ProsocialLearn will foster the creation of a new market for digital games aimed at increasing social inclusion and academic performance, as well as a distribution channel to deliver these games to children and teachers in European schools.

Prosocial game API
Traditional game developers know how to produce engaging stories and exciting content, but lack scientifically proven mechanics for creating games that can increase social inclusion and academic performance. The ProsocialAPI will enable them to easily incorporate prosocial constructs into their games.

Join ProsocialLearn!
The ProsocialLearn consortium aims to raise awareness of and engagement with the ProsocialLearn project among educators, child development professionals and game developers, as well as scientists and ICT professionals, policy makers and funding bodies, and the general public.

Contact ProsocialLearn!
To know more about ProsocialLearn, as well as join the ProsocialLearn community and receive regular project updates, visit http://prosociallearn.eu or email us at info@prosociallearn.eu.

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Description
ProsocialLearn is founded on the hypothesis that children at risk of social exclusion, lacking empathy and showing high levels of aggressive or anti-social behaviours, should benefit from digital games tailored to teach prosocial skills that can help them achieve academically, appreciate team work and recognise the value of understanding other people’s needs.

The gamification of prosocial learning
ProsocialLearn aims to help children learn prosocial skills through digital games, with a set of well-defined prosocial learning objectives that are designed for the development of specific prosocial skills, in terms of prosocial theory, gameplay and game mechanics.

An ecosystem for prosocial games
ProsocialLearn also aims to create a new market for digital games, designed to support learning and development of prosocial skills, by massively accelerating the development of a value network and ecosystem for prosocial games across the education sector.

Expected Impact
ProsocialLearn will deliver a variety of disruptive economic and societal innovations, as well as directly impact the general objectives of several EU competitiveness, innovation and industrial policy programmes.

Economic impact
ProsocialLearn will build on the games industry’s innovative capacity to engender new business models, create path-breaking content and germinate new service cultures by providing a prosocial gaming platform to the educational sector, and provide new opportunities to not only address societal challenges, but also new markets for creative and innovative SMEs in Europe.

ProsocialLearn will also transform games in the educational sector dramatically, increasing the quality of digital games by bringing together state-of-the-art technologies from the leisure gaming industry with scientific theories of prosociality and pedagogy.

Societal impact
Social inclusion and individual empowerment: Help teachers incorporate games into informal and formal programmes, and make a major contribution to social inclusion and empowerment.

Personalised learning: Deliver highly configurable games (offline/online) that adapt in terms of learning objectives, game scenarios and game elements based on player profiles and current behavioural, emotional and cognitive states.

Support for disengaged and disadvantaged learners early in their development: Achieve high predictability of prosocial signals and associated problematic behaviours in order to take necessary measures to act in prevention.

Success in formal education for empowerment and access to the jobs market: Empower individuals through prosocial skill acquisition in a formal education context.

Enhanced employability: By developing prosocial skills individuals will have a more positive attitude and will be more effective in working and communicating in teams.

Objectives

An ecosystem for prosocial games
A new ecosystem must be established for student learning and skill acquisition based on prosocial gaming that channel’s creativity, innovation and technologies from the traditional games industry to the educational sector.

The financial risk to small game companies must be significantly reduced to create an incentive for new prosocial game productions, by offering domain-specific expertise, marketing and distribution channels for these games, and the perception of games must also be changed to increase acceptance of their use by teaching professionals in school curricula.

Production and distribution of prosocial games
A dedicated prosocial game development and distribution platform must be provided to distribute prosocial digital games from SME game companies to the educational sector.

ProsocialLearn’s innovative application programming interface (API) will allow developers to integrate a range of functions into prosocial digital games, while supporting mechanisms for data collection with protection of personal information.

A prosocial gamification methodology for learning and skills acquisition using serious games must also be provided in order to consistently deliver effective content that serves the required pedagogic goals.

Validation of the ProsocialLearn platform
Student outcomes must be linked to prosocial learning objectives to communicate expectations and to provide the basis for evaluating teacher, student and game effectiveness. Prosocial skills must be measured efficiently and cost-effectively using a series of informational cues related to gameplay behaviour and signals hidden in game mechanics will be linked to prosociality.

Using a pedagogically sound prosocial model that stores student data over time, teachers will be able to efficiently monitor progress and assess mid- to long-term learning outcomes across multiple games and game sessions. Games will also be aligned to curricula, helping teaching professionals to understand how to incorporate games into teaching programmes.

Consortium
To deliver disruptive innovation, the ProsocialLearn consortium has been shaped to include existing knowledge in technology (visual sensing, data fusion and game mechanics), operations (PaaS and SaaS) and business models to not only provide a technical solution, but also address target market barriers to adoption in terms of supply (from the leisure games sector) and demand (in the educational sector).

The nine members of the ProsocialLearn consortium and their project are:
Atos S.A., ES • Centre for Research and Technology-Hellas (CERTH), EL • University of Southampton IT Innovation Centre, UK • Redikod AB, SE • PiGen Ltd, UK • University of Cambridge, UK • KTH Royal Institute of Technology, SE • Ellinogermaniki Agogi (EA), EL • B Lorenzi Comprehensive State Institute of Fumane, IT