

## **Smart Autism Game Architecture: Challenges, Innovation and Obstacles; SAGA-C, 2025-2026.**

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SAGA-C project aims to develop effective strategies and interventions using video game to enhance social interaction skills, nurture friendships, and improve emotional control and challenging behaviors management in highly functional young people with Autism Spectrum Disorder (ASD). While significant progress has been made in ASD treatment through the integration of AI and the adoption of modern concepts and technologies, certain challenges still remain to be solved. Main problems include heterogeneity of symptoms, understanding others' perspectives and managing one's emotions and challenging behaviors –which are essential for adequate social integration. Key design elements, such as difficulty level, gameplay duration, and the aesthetic appearance of humanoid characters, will be carefully considered. Categories of autism that align with the target audience will be defined, ensuring the game is inclusive and tailored for both genders and levels of functioning/adaptability. In collaboration with our diaspora partner, an experienced game design expert, and medical professionals specializing in ASD, we will design a virtual platform for practicing social skills and emotional control. This platform will incorporate Behavior Modification Strategies and Structured Environments to create controlled, frustration-free conditions that encourage progress. By the end of the one-year project timeline, we aim to deliver a finalized game design and potentially a prototype. The game is envisioned as an intervention tool to facilitate acquisition of social skills, enhance emotional and behaviour control, and track progress over time. Testing with real participants is not planned for this phase, ensuring a focus on robust design and functionality.

Diaspora partner: **Dr Stanislav Stanković, Senior Game Design Director at Electronic Arts Oy, Helsinki, Finland;**

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