SERIOUS GAMES
Session co-chairs: Li-Te Cheng and Ben Sawyer

Serious games is the general term used to describe the increasing application of videogame technologies into non-entertainment domains. Originally videogames mostly centered around entertainment, growing into a multibillion dollar industry that helped advance the state of the art in computer graphics, user interaction, and computational software and hardware. As the videogame industry drove these advances, powered essentially by the sale of consumer packaged goods new stakeholders began the process of adapting both the technologies and media of videogames for training, simulation, education, health and beyond.

The initial wave of serious games focused on helping students and professionals learn and train. These obvious applications dominated early on and even today it is widely assumed by many that serious games is for learning and training efforts. But that is not so. Today, health is perhaps the most ascendent category for serious games, with many applications focused on therapeutic and health behavior change efforts. In addition, a third wave of experimentation is underway to not just education, exercise, and train people, but to shape and improve their output and productivity. Much like Orson Scott Card's science fiction story, "Ender's Game" (where gameplay directly manipulates military actions), a new generation of serious games are focused on innovative crowdsourcing activities that tackle scientific, organizational, and social challenges through videogame play.

Serious games is best understood as a medium of many design, engineering, and technical domains, rather than a specific technology. While becoming diverse as other forms of media like movies or books, they all share a common repertoire evolved from the past history of games for entertainment and education. This includes models, interactive techniques, and aesthetic methods to motivate and support players towards outcomes beyond the emotional experience derived from being entertained. This session will examine the gamut of activity in the serious games field, focusing on its use across a variety of disciplines. Attendees will come to understand how videogames and videogame technologies represent a new strategic tool providing unique traits and affordances for engineers to utilize in future projects.

There will be four speakers in the session. Kurt Squire will provide a general overview of the serious games space, from a national policy standpoint and as educator. Richard Marks will talk about getting innovative game technology out of the lab into the living room, and how cutting edge technology can create new experiences to expand the gaming audience. Zoran Popovic will present how serious science is being achieved with serious games, reflecting on his experiences in using crowd sourcing games to tackle scientific challenges. Cory Ondrejka will cover the intersection of serious games, social networking, mobile, and metrics, and how this is leading to new applications.