Panel: Game Programs in Higher Education: Connecting Colleges with Corporations

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ABSTRACT

The on-going growth in the digital game and gamification movements in higher education is evident in the expansion of specialized game events (workshops, conferences), publications (journals, books, blogs), programs, and centers, in addition to the broader adoption of games in computer science, software engineering, and computer engineering research and education. This lively panel provides an outstanding opportunity for attendees to interact with a variety of constituents with experience in teaching and/or hiring the next generation of game developers. The panel highlights the opportunities and challenges educators face, while they prepare the future gaming and non-gaming engineering workforce.

Categories and Subject Descriptors

K.3.2:[Computers and Education] Computer and Information Science Education, K.4.0:[Computers and Society] General

Keywords

Panel, games, higher education.

1. INTRODUCTION

Serious educational games, corporate gamification, and the entertainment gaming industry are multi-billion dollar endeavours that continue to drive educators to develop highly skilled talent and conduct innovative research. Specialized game development events, publications, programs, and centers continue to expand globally, both in terms of popularity and availability. More traditional programs such as computer science, software engineering, and computer engineering (CS/SE/CE), are also adopting games into their curricula as teaching tools and course projects.

In this panel the current state of gaming education, in addition to possible visions for the future are explored. This panel fits very well within the "Game Education" stream, but has broad appeal for all conference attendees. The style of the panel follows more of the emerging areas type, wherein the panelists have a broad

range of experiences in contemporary game education: undergraduate students involved in game-based capstone design projects; program/center/school administrators (specialized game programs and more traditional CS/SE/CE programs); and industry representatives.

As a premier event for game development research, the FDG conference is a space where many educators and industry experts from disparate locations come together to have conversations on the very things that we propose here in this panel. The panel creates a focal point for gathering and a jumping off point for further conversation and networking; it is organized around several activities as outlined below.

2. ORGANIZATION OF THE PANEL ACTIVITIES: TALKING POINTS

2.1 Brief Introductions

As the first activity, panelists introduce themselves and provide a context for their work in game-oriented education, in addition to their relationship to the games industry (if any). At this point, each of the panelists presents a 'mini-position' upon which they can elicit audience responses later.

2.2 Three Rounds of Discussions

Three rounds of discussion are organized in this panel. Within each round, the panelists have opportunities to address groups of questions based from their experience and individual contexts. They are not asked to answer all questions, rather only speak to the questions that best fit their specific contexts.

The first round of discussion revolves around undergraduate education in CS/SE/CE. For example, what do game curricula/programs provide that more traditional programs typically do not (or cannot)? What is truly valuable in game-development education that others need to know about? For example, what is truly valuable in a games-based curriculum, and why are they great projects for capstones rather than turnkey projects? Can one speak to the development of soft-skills, inter-professional education opportunities; entrepreneurship and game development? What would you say is unique about your curriculum?

The second round of discussion directs panelists to think about the connection between game-oriented education and that of the broader software development industry. For example, what are the roles of these programs in technology transfer? To what extent does research and development play a role in your program? What, if any, is the broad applicability of your program and its

collaboration with industry? How do extracurricular activities (game competitions, coding competitions, clubs) enhance the programs? What elements of the program work well or need improvement for industry I terms of skill development?

The third round of discussion focuses on the future of game-oriented programs. What do the panelists perceive about the rapid growth of game programs and subsequent enrollment increases; are they sustainable or a temporary blip? What does it mean to start a game program in the current contexts of higher education from your vantage point? Is there a sufficient pipeline for industry and how can we continue to attract students and/or compete for diverse talented students? How can the interactions between academia and industry be improved to benefit all the stakeholders?

2.3 Panel Summary
The panel will wrap up with a summary of the discussion and an invitation to provide contact information (social media, e-mail) to encourage on-going discussions and collaborations.

3. PANELISTS
Our panel is composed of highly respected members of the game and software engineering research and development communities. Our confirmed panelists are:

- Dennis Brylow, Marquette University, U.S.A., plus one undergraduate engineering student taking a game-based senior design capstone project course.
- Drew Davidson, Carnegie Mellon University, U.S.A.
- Susan Gold, Northeastern University, U.S.A.
- Letizia Jaccheri, Norwegian University of Science and Technology, Norway
- Walt Scacchi, University of California, Irvine

To round out the panel we are in the process of involving additional, international game researchers and developers, with substantial game development experience in industry.