Festival of Learning Showcase

Facilitator(s): Associate Professor David Gibson, Director Learning Engagement

Strategic theme: Rich, interactive learning experience

Subject Title: Interactions in Digital Challenge-Based Learning

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Brief Description:

Challenge-based learning is a new teaching model that incorporates the best aspects of problem-based learning, project-based learning, and contextual teaching and learning while focusing on current real world problems (Johnson, Smith, Smythe, & Varon, 2009). Online global digital learning challenges engage students’ curiosity and desire to learn by making central the solving of open-ended problems as a member of a self-organizing and self-directing international team (Harris & Nolte, 2007). In particular, when delivered as a mobile digital learning experience using an application platform developed at Curtin University, such challenges can integrate 21st century tools, require collaboration and assist students in managing their time and work schedule, while effectively scaling to large numbers of students.

Set in the environment of a friendly competition where people experience game-like attributes such as automated feedback, points, leader boards, badges and levelling up for rewards, challenge-based learning increases motivation toward high performance (Gibson & Grasso, 2007). Research on challenge-based learning is beginning to show impacts such as increased engagement, increased time working on tasks, creative application of technology, and increased satisfaction with learning (Johnson, Adams, & Apple, 2010; Roselli & Brophy, 2006). The Challenge research and development process has led to new approaches and ideas about educational measurement that take account of patterns in time, high resolution paths of action, and clusters of virtual performance artifacts. The new approaches, which depart from traditional statistical analyses, include data mining, machine learning, and symbolic regression. This talk will briefly describe the context, methods and key explanatory constructs used to make claims based on engagements in online challenge-based learning.

Benefits: Raise awareness of Curtin Challenge and promote research creativity into game-based learning

Time/Day: Monday 16 March 2015, 3:30 – 4:30pm

Duration: 50 mins

No. of Sessions: One

Venue: Building 300:Room 214

Special Requirements: No special requirements needed