

Chapter 3

Games in Higher Education: Opportunities, Expectations, and Challenges of Curriculum Integration

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ABSTRACT

In an age of technological tools ranging from social media to virtual environments, higher education institutions need to re-examine the context of their content delivery, creating an opportunity for more realistic learning methodologies across the education spectrum more closely aligned with expectations from the world of work. Today's learners consist of a cadre of individuals aptly described as "digital natives" (Prensky, 2001) whose proclivity for technology adoption is natural, as most grew up with access to computing technology and have directly experienced its evolutionary path. As such, higher education professionals are now challenged to specifically treat with a generation who perceive technology as a natural extension of their daily lives, recognizing that traditional approaches inclusive of e-learning are no longer sufficient to engage their student population.

INTRODUCTION

The opportunity for Game-Enhanced Learning (GEL) within higher education lies in its ability to mitigate the degree of abstraction between theory and application of content. Students today represent a new generation, Generation C. This generation as defined in a seminal article by Booz Allen Hamilton in *Strategy and Business* (2011) is described as follows:

They are realists, they are materialists. They are culturally liberal, if not politically progressive. They are upwardly mobile, yet they live with their parents longer than others ever did. Many of their social interactions take place on the Internet, where they feel free to express their opinions and attitudes. They've grown up under the influence of Harry Potter, Barack Obama, and iEverything—iPods, iTunes, iPhones. Technology is so intimately woven into their lives that the concept of early adopter is essentially meaningless.

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Higher education is faced with the challenge of a large influx of Generation C students given their demographic (18-34 years). This catchment now pervades all aspect of the systems from freshman to graduate students and those taking continuing education units to remain current in their workplace. What is consistent across the higher education spectrum is that these students are not traditional brick and mortar students of two decades ago. Their interest and attention span cannot be captured simply through dissemination of content in a traditional classroom. As such higher education needs a new pedagogical approach to engage this present cadre of students. The approach should allow for richer learning experiences that are contextual, theoretically grounded and present a degree of realism while providing students with a more acceptable “*aha*” i.e. (similar to the famous statement by Archimedes eureka “I found it”) moment post content dissemination. The linkage between theory and experience within higher education for these students must be closely aligned so as to allow for an easier translation of the content into workable schemas, across multiple digital domains which they can apply in the workplace post graduation.

Similarly, professors and academic administrators alike need to first recognize that the present mode of curriculum design and by extension its integration does not fit with prevailing audiences. They further need to be convinced of adoption and adaptation of the curriculum underpinned by its ability to measure the impact of games enhanced learning on student performance much in a similar manner as traditional test are administered presently. It is only through valid and visible measurable impact of new media technologies such as games will they take their place on the curriculum design table becoming relevant and sustainable within an academic context. To ensure such an ambitious effort higher education institutions need to re-think the way they presently teach and dis-

seminate content. As most institutions are already aware even the perception of universities in their current brick and mortar institutional format are rapidly being challenged with the advent of so many virtual university models.

In examining games-enhanced learning in higher education its opportunities, expectations, challenges, and curriculum integration one has to be wary of the very traditional and somewhat inflexible landscape that needs to be changed. Even the slightest modification to existing curricula within higher education institutions can possibly be met with extreme resistance.

The major questions therefore are: How do institutions effectively integrate gaming approaches into the curriculum? What is the best way to gain buy-in and adoption and how do they measure the effectiveness of these games post curriculum integration?

The best way to commence this discussion is to introduce this topic with some definitions of the term game-enhanced learning, also referred to as game-based learning or serious games.

Serious Games Definitions:

- According to Corti (2006) game-based learning or serious games as it is mostly referred “is all about leveraging the power of computer games to captivate and engage end-users for a specific purpose, such as to develop new knowledge and skills” (p. 1)
- Zyda (2005) defined serious games as “a mental contest, played with a computer in accordance with specific rules, that use entertainment to further government or management education, education, health, public policy and strategic communication objectives” (p. 26)
- Michael and Chen (2006) define a serious game as “a game in which education (in its various forms) is the primary goal, rather than entertainment” (p. 21)

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