

Games are more than just child's play

Students and professors embrace the role of games in teaching, education and future careers

By Sarah Cavill, Contributing Writer

It comes as no surprise that today's college students, native users of technology since they learned to talk, are investing more and more time and energy in gaming as an educational tool. Burgeoning majors like simulation and digital entertainment (SDE) at the University of Baltimore (UB), and two undergraduate tracks at UMBC, under the GAIM (Games, Animation and Interactive Media) auspices, are taking gaming out of the basement. While it may sound suspect at first, the idea of tuition dollars going to kids sitting around playing video games, it is fundamentally about the application of art, coding, development, math, cybersecurity and engineering, among others, across various fields and disciplines.

"Students in the SDE program are driven by the fact that their skill sets can be utilized across science, technology, engineering, art and mathematics (STEAM). They are interested in finding out the usefulness of games and simulations in various other fields such as medical, diagnostics, engineering, sciences, cyber and space technology," says Sujan Shrestha, assistant professor at the college of science, information arts and technology at UB.

Within the SDE program, students can focus on various aspects of gaming and game creation. Some students focus on game writing, while others create programming languages. The technical art track at UB is engineered for students with an interest in animation and 3D modeling, and game design theory is an intensive approach to understanding user preferences and usability. Students in the SDE program also have access to the UB GameLab.

"The UB GameLab is a multi-purpose research facility that supports students and faculty



Photo courtesy of University of Baltimore, James Chrystal, contributing photographer.

implementing original ideas.

"Frontiers of Game Design is a course with a revolving topic, focusing on an emerging or experimental concept and/or technology in game

development track in computer science and the animation and interactive media concentration in visual arts. In both cases, the students get a degree in the primary discipline, a B.S. in computer sci-

Women and gaming continue their growing alliance

Jacqueline Wojcik is a senior in the Honors College at UMBC. She will graduate soon with a B.F.A. in visual arts with a concentration in animation and interactive media and a minor in computer science.

"In the next academic year, I will complete a Fulbright research grant in Oslo, Norway titled 'The Gokstad and Oseberg Burials in Digital Space.' I will create digital models from two Viking Age ship burials and place them in interactive, game-like environments so that people can see how the artifacts would have been used in the lives of their owners. The project will explore the intersection of games, learning and archaeological visualization," says Wojcik.

As a member of the UMBC Game Developers Club, Wojcik has seen first hand the impact that games can have on learning and different skill sets. "They are absolutely useful in learning to understand complex systems and seeing things you have learned about in action," she says. The club participates in networking events, aimed at connecting students and industry professionals. Wojcik would also like to work in the gaming universe, so she joined the club to grow her portfolio. She is currently working on the game "Legacy of the Shards" as a character artist, rigger and animator.

Wojcik considers herself both an artist and a gamer. She is more of an artist and a visual designer, than a technician, and she sees that often her fellow female student tend to do less programming and instead focus more on the

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in a cross-disciplinary team, learning to work with people with completely different skills. That happens in just about any real-world job, but it is experience that is often missed until you get into those real-world settings," says Olano.

At McDaniel College, learning through games doesn't include gaming in the modern sense. In fact, it goes back, way back, asking students to take on the roles of great scholars, artists and historians to understand the outcome of world events, art history or other complex issues of the past. "Reacting to the Past" was created at Barnard College in the late 1990s as a way of teaching that didn't rely so heavily on lecturing from the teacher, and instead encourages the student to dive deep into their subject, using writing, critical thinking, problem solving and teamwork to better understand the ins and outs of their assignment. They must rely on what they've learned in context to formulate their argument, maintaining the philosophical and intellectual arguments of the time and character they are playing.

"This is an active learning technique. They learn the content better than if I were just jabbering. Every game is very carefully orchestrated. Every student gets a game book, historical material, historical outline and victory objectives. They have to prepare speeches, give oral arguments in a debate-like format, and they have to write up the debate afterwards. This is a deeper learning, and the retention is astonishing," says Gretchen McKay, professor of art history at McDaniel. McKay has been using Reacting to the Past for over a decade, and has even written her own

games. Initially a skeptic, she was blown away but what she saw, and went on to chair the national Reacting to the Past consortium board, which oversees the curriculum.

Reacting to the Past is rooted in the facts. Students must have a strong understanding of what actually happened before they can argue what should have happened or a different solution to a historical event. "Throughout the game you do research. I had to give a speech on neo-impressionism, and I broke down the parts, did the research and really got to know it and understand it in a deeper way. It also lets you really focus on the parts that you are confused about at first," says Qwentin Dobbs, a sophomore at McDaniel, majoring in communications.

"The game really drew me into class and grabbed my attention, because it's a different way of teaching. It's hands on. I took three classes with [Professor McKay] because I was so intrigued, and it brought out the best in me. And it's a lot of fun and competitive," says John Chamberlin, a junior at McDaniel, majoring in exercise science.

After every game, which vary in number and length depending on the level of the class, there is a debrief, where students discuss, as their 21st century selves, what they learned. "Kids can often get upset. They learn that history is not predetermined. People are the reason that history happened the way it did. Reacting to the Past encourages civic engagement," says McKay. •

Right: Samuel Blank, a McDaniel College junior from Finksburg, Md., discusses Salon de la Rose + Croix during the Paris Exposition in the "Art in Paris" Reacting to the Past game.