DigiPen graduate Joe Bourrie developed Rumble Box along with fellow student Patrick Hackett. Their addictive game won the Slamdance Student Physics Award this year, and now they hope to be crowned with the top prize for Innovation in Game Design at the Game Developers Conference this month in San Jose. To smash your way through Rumble Box, make sure to download the game from: http://phackett.com/rumblebox. And to get the inside scoop on the game, read our interview with Joe, who took time out to discuss the game and his hopes for the future.

**Q: What is the premise of your game?**
Rumble Box is a 3D beat-em-up where all of the enemies are made of basic shapes which break apart when defeated. The objects pile up to fill the arena, with the goal being to get out of the box. The combat is fast paced and context sensitive, with sixteen moves mapped to two buttons. You can punch and kick your enemies, or even pick them up and use them as a weapon! Rumble Box features three play levels, three challenge levels, and nine unlockable bonus stages.

**Q: What other games inspired your design?**
Rumble Box is very much inspired by the Sega game Streets of Rage, in particular the elevator stage where the enemies pour into a confined environment. However, in this and other games the enemies always disappear when defeated. We decided to challenge that notion by saying, “What if the enemies stayed around?” The context-sensitive combat was inspired by Shiny’s Enter the Matrix, many of the graphical effects were directly inspired by The Legend of Zelda: Wind Waker, and the “simpler is better” approach came partly from playing a lot of Katamari Damacy.

**Q: What was the most difficult part of the creative process?**
From the very beginning we knew what we wanted the game to feel like. However, it took many iterations of the gameplay to actually give the player that feeling. For example, we originally wanted the players to get stronger as they fought. To this end, we had a chain system that would increase the strength of your punches. This system just didn’t give us the feeling that we wanted, so halfway through the project we threw out the whole chain/scoring system and started over. The system that came from that is actually simpler, but the depth of the context-sensitive combat was able to give the player that feeling that the original chain system never could.

Another challenge was the UI. We knew we didn’t want the UI to be just a bunch of screens that fade to black, so the UI was designed so that there are never any jarring motions. However, the game has over 10 unique transitions, and designing all of these transitions to look smooth was a challenging task.

**Q: What was your reaction when you got news you had won the Slamdance Student Physics Award?**
Winning the Slamdance Physics Award firmly established that Rumble Box has become the success
**Faculty Spotlight**

**Jason Hanson**

**Computer Science Department**

Jason, a native of Binghamton, New York, has traveled the world as a student, teacher, and professional. After completing his B.S. majoring in both math/physics and astronomy at the University of Massachusetts at Amherst, he completed an M.S. in physics at the University of Virginia, and an M.A. in math at Columbia University in New York. He received his Ph.D. in math from the University of Hawaii, where he researched and wrote on algebraic topology. Following his graduate studies, he taught undergraduate math, computer science, and astronomy for the University of Maryland at a number of military bases around Korea. Two years in Korea was enough for globe-trotting Jason, who returned to the United States to work as a computer scientist for NASA’s Goddard Institute for Space Science in New York City. There he helped develop the graphic output for the Goddard Institute’s Global Climate Modeling project.

Since 2000, Jason has lived in Sammamish with his wife and two children. This is his fifth year teaching a variety of computer science classes at DigiPen—everything from basic programming to ray tracing. He is currently at work on a paper for future publication that focuses on equivariant bordism. But his hobby is displaying four and five dimensional objects using Java applets. He describes the process of modeling higher dimensional objects in 3D as analogous to sketching a box in two dimensions on a sheet of paper. To see examples of Jason’s work with links to his geometric models of higher dimensions, visit http://www.digipen.edu/~jhanson. Why care about dimensions that we can’t fully conceive of? Jason responds, “fun and games.” And with that, he also sums up DigiPen with his customary mathematical efficiency and elegance. For Jason, education is about inspiring curiosity and playing with thoughts and ideas, even if they’re in higher dimensions.

**Workshop Summer Sublet**

Roommate going out of town this summer? If you anticipate having an extra room this summer, consider subletting it to out-of-town summer workshop students. Workshops run every two weeks from June 12 to August 18, 2006. Please submit a short “advertisement” for your available room to Omar Elmais at oelmais@digipen.edu.

**Webcast Series a Success**

In February, DigiPen hosted the last session of its well-received Microsoft webcast series, “Intro to 3D Game Programming Using C#.” This is the second game development series Microsoft commissioned DigiPen to develop and teach. The first, headed by Matthew Mead, Assistant Professor of Computer Science, launched in 2005. But the latest webcast series was taught by DigiPen senior Doug Heimer, with assistance from fellow RTIS seniors Todd Eckert, Jason Hoffman, Chuck Skoda, and Andy Vella. DigiPen’s student-instructors answered questions posed by a live audience that averaged 300 participants per session. Most of the participants were experienced programmers who raved about the series and the instructors. But the success of the webcasts are also due to the efforts of Margaret Becker, Katrina Chu, Samir Abou Samra, other staff members, and DigiPen’s in-house IT department, helmed by Ryan Fulcher, Atom Powers and Aaron Klemm. To view the archived sessions, please go to http://www.microsoft.com/events/series/msdnvideodev.mspx.

**Number Theorists Gathered at DigiPen**

DigiPen and Microsoft Research co-hosted the Tenth Pacific Northwest Number Theory Conference at DigiPen’s Redmond campus from February 25-26th. Dr. Matt Klassen, Associate Dean and Associate Professor of Mathematics, reports that the conference was a resounding success. Speakers came from UC Berkeley, UC San Diego, Simon Fraser University, Colorado State University, the University of Calgary, and Oregon State University. One of the speakers, Professor William Stein of UC San Diego, noted that had DigiPen offered its B.Sc. program when he graduated high school, he would have studied at DigiPen. Not a bad compliment coming from one of the top computational number theorists in the country! For a summary of the conference talks, access http://research.microsoft.com/~klaufer/PNWNTC.htm.

**MTV Contest Finalist: Serious Games**

Shanti Ambassadors—Crisis in Darfur, a game designed by a team of RTIS juniors, is a finalist for the mtvU Darfur Digital Activist Contest. The competition is funded in part by the Reebok Human Rights Foundation, which will contribute up to $50,000 to produce the winning game in order to promote awareness about the genocide in the Darfur region of western Sudan. For team member Pete Kugler, educating others is more than just a hopeful outcome, it’s his career. In addition to studying full-time at DigiPen, Pete is a Special Education teacher in nearby Bellevue.

Pete uses games in the classroom because he believes that the interactive nature of games allows players to vicariously experience an event with a depth of psychological identification that is not possible in traditional media. His goal is nothing less than to use games to educate young adults and teens about current events. The narrative of the game provides the immersive environment for the player to discover the history of the conflict, and the current scale of the humanitarian crisis. Pete explains that his game “illustrates the conflict from its staging grounds in the capital city of Khartoum through a linear story that follows a group of students as they attempt to effect change. Often when I see a foreign film, or listen to a vivid story from an exotic place, there is a permanent change in my views toward the world,” Pete says. “At one end, I do feel fortunate to have been born into the life that I live, but more importantly, I see that there are bigger issues in the world than my own material desires that need attending to.” Although critics may question the role video games can play in educating young people, Pete’s experience as a teacher leave him optimistic: “Games have an enormous impact on people, and you would be surprised how many kids have come across who can name all 1000 of Tony Hawk’s tricks, but cannot recall one bit of academic knowledge.” He hopes his game will change that, and lead young voters to influence lawmakers’ policy when it comes to ending the Darfur genocide. “If the game wins and special care is taken in its development,” Pete says, “I believe that it could encourage life-changing awareness for those who play it.”
Workshop Profile: DigiPen ‘Mon!

What did you do last summer? BFA sophomore Neil Adler taught for DigiPen’s ProjectFun Summer Workshop in Jamaica. If that sounds like more fun than you had, teaching positions are still available with salaries ranging from $12-24/hour depending on position and location. Interested students should contact Masayo Arakawa at: marakawa@digipen.edu. But if that’s not enough to get you packing your bags, read Neil’s description of his month-long stay in a tropical paradise:

“Last summer I taught a workshop in 3D animation and video game programming to students in Jamaica along with three other instructors. I love learning about other countries and cultures, so it was a great personal experience as well as a great teaching experience. The school we taught at was surrounded by mountains with tropical vegetation. Many of the students’ animation projects revolved around nature. They depicted insects, animals, forests, and waterfalls to name a few things. It wasn’t hard to see that the students were influenced by the Jamaican environment. In the workshops I’ve taught in the U.S., student projects had more of a man-made theme, often using buildings, robots, and indoor settings.

Jamaicans speak English and also a regional patois, so at times I felt like I was learning a new language. Patois uses some English words, but also has many of its own. For example, wa gwan is a greeting in patois. The other teachers and I learned a lot about Jamaica and its culture from one of the staff members of the school where we taught. During our lunch breaks, he took us on tours of the surrounding area. We went to an art museum, visited a produce market, ate at a Jamaican fast-food restaurant, and had many talks about Jamaican culture. After being in Jamaica for a month, I was sad to leave, but thanks to Ben Mauro and his digital camera I have nearly 3000 pictures to remember Jamaica by.”

Faculty Forum: Games & Education

Using games as an instructional technology, so-called “edugaming,” is a concept perennially popular in discussions of pedagogy, but frequently maligned in the gaming industry and among gamers themselves. Recently the idea has been floated that there are two models for using games in education: the “instructionist” model and the “constructionist” model. The first views of games as a medium to deliver educational content, the second views the designing and programming of games themselves as a valuable educational experience. Two DigiPen faculty members from the Department of Game Software Design and Production discuss the topic:

Chris Erhardt: What do I think of games used in and for education? The fact that people argue about this is absurd since games have been used to teach since before Descartes, and electronic games have been used to teach for over 40 years, ever since Steve Russell designed “Space Wars” on a PDP-1 in 1962. Games and education are mutually inclusive. And as you can tell from the above, I am obviously falling under the instructionist side of the coin here.

Jen Sward: Either you make games to educate, or you recognize that any game you make educates regardless of what you meant it to do. So maybe I’m a “constructionist.” I agree with Chris in that games and education are mutually inclusive. Learning is and should be fun, yet is often relegated to rote memorization, with no understanding of the why or how. If learning is fun, the brain is more active, more focused, more interested and engaged—the exact things we want when we make a game. In a game you can embed (either obviously or not) things that fit into what we deem as being “educational.” Puzzles can be solved by finding the correct addition of two large numbers, or finishing the rhyme and collecting the missing object of the poem. One teaches math, the second teaches rhyme as well as creative problem solving. Both teach thinking.

Chris Erhardt: Games are one of the few mediums that utilize both hemispheres of the brain in tandem to achieve education, and therefore increase retention.

Jen Sward: About gamers maligning educational games…it’s very true. Most gamers and game developers see “education” as a stigma. It wasn’t that long ago that edutainment was horribly heavy-handed. In a lot of instances, it still is. Not only that, but many gamers don’t want to feel like they are learning anything. They say, “it’s a game!” And by protecting themselves in calling it a “game,” they feel that any behavior can be tolerated and encouraged. Here’s where I disagree, and strongly. It’s definitely appropriate to make games that are violent, but you have to recognize that what is all right for adults is not all right for children.

The opinions expressed in this article are solely those of the individuals interviewed and may not reflect the position of the DigiPen Institute of Technology.
DigiPen can really surprise me sometimes. What I never anticipated was the support Student Association received for Comedy and Talent Night, nor did I think the event would be as awesome as it turned out to be. If you attended, thanks for supporting my idea. If you missed it, you can only hope we have the same turnout next time.

The real stars of the show were RTIS first-year students Brittany Aubert and Shea Vo. Not only did they do an excellent job hosting the show, but they took charge of the talent search, tryouts, and a lot more only two weeks before the event. Add in the fact that it was one of the better DigiPen events I have ever attended, and I can only hope something of this scale can become a regular event around the school. I extend my thanks to everyone who helped plan, advertise, coordinate, attend, and star. It was perfect.

And if you can’t believe I have anything more to add, then you must have forgotten the big show this month: the Game Developers Conference in San Jose, California. I know Student Association is proud of the work submitted to the show, and I’m amazed at the success we have every year. If you have submitted a project, even if you don’t place in a showcase, you have shown the games industry that students from DigiPen are the future of game development. For those student projects that do win, you have earned a well-deserved congratulations.

For everybody else, if you are taking a real break on your Spring Break, just remember: you can count the number of weeks left in the semester on one hand!

Russell Wardinsky
Student Association President
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we dreamed it would be, and is also all the encouragement we need to continue pursuing our goals. We couldn’t be happier winning the award, especially when matched against all of the other great games that were at Slamdance.

Q: What are you and Pat working on now?
Both of us are currently working at Rainbow Studios in Phoenix, Arizona. On the side, we are developing a free web game to promote the independent film Open House. Finally, there are some side projects that we are eager to start after we get back from GDC. There just aren’t enough hours in a day!

Library News - Calculators

The library announces the availability of several calculators students can check out as needed. Stop by the library and speak with head librarian, Marci Myers, for details. And you’ll need your calculators now that the library will issue fines for late and lost materials. Fines are accrued on accounts at a rate of 25 cents per day for the general collection, and 50 cents per 2-hour loan period for reserve items. During the hours the library is open, reserve materials are limited to a 2-hour check-out period. Library accounts will be frozen and borrowing privileges suspended when fines accumulate over $25. Payments can be made to the front office cashier.

Check out more DigiPen News online at: www.digipen.edu