THE SECRET OF 'SECRETS': THE TEACHER AND THE STUDENTS

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Abstract

In 2014, the author collaborated with game designer Lee Sheldon to create a fully online Alternate Reality Game based course called *Secrets: A Cyberculture Mystery* Game. The process for designing a game-based course, distinctions between game design and instructional design, the role of the professor, the value of nonplaying characters in a live course, and "Experience Points" as an alternative to traditional grading are discussed. The author shares lessons learned from the design and teaching the course, as well as the enthusiastic reviews of adult online students. Further, he describes the purpose and necessity of innovation and game-based learning's innovative potential in the online learning world.

KEY WORDS: Game-based Learning, Innovation, Multiplayer, Classroom, Distance Education, Online Learning

1. INTRODUCTION

1.1 Why a Game?

As more and more traditional colleges and universities move some of their courses and programs to a fully online platform, they will encounter some of the long-standing issues online colleges have faced, but have still not entirely solved. In fact, the prevalence of Massive Open Online Courses (MOOCs) among top tier universities already reveals some of the persistent challenges of online course delivery. Faculty moving from the traditional classroom to the virtual classroom quickly realize the lecture format of many traditional classrooms simply cannot work online. At the same time, the tendency of online colleges to push faculty to the periphery is equally problematic. Students pay high tuition fees because they want to experience highly regarded professors. Who can blame them? Aside from the question of teacher presence, text-based and paper driven online courses quickly become deadening for students. Reading texts online or off-line and writing essays based on the reading fails to engage students, and the online discussion forum, for all its benefits, cannot adequately address required reading in an effective fashion. Discussions often turn into mini essays, and the spontaneity of a genuine conversation becomes lost.

How can a fully online course deeply engage students, appeal to diverse learning styles, and allow for a variety of learning products/artifacts or demonstrations of learning?

Back in 2014, when I was Director of Humanities at Excelsior College, a small nonprofit online college, headquartered in Albany, New York, I set about experimenting with game-based learning to build a dynamic, engaging course that would appeal to adult students accustomed to standard online courseware that, for reasons of scale, often predominates in online education. The School of Liberal Art's dean at the time, Dr. Scott Dalrymple, handed me the proposed title *Culture of the Internet* and allowed me free reign in designing a course using technology that would—hopefully—be creative, stimulating, and appropriate to the course. I had been following the rapid expansion of the video game industry with excitement, especially the opportunity to apply game design theory to education. Kurt Squires' (2006) and James Paul Gee's (2007) work had made a significant impact on my thinking, but more fortuitous was the fact that I was also teaching literature part time at nearby Rensselaer Polytechnic Institute (RPI), a prestigious private university just across the river in Troy, NY. RPI had a highly regarded Games and Simulation Arts and Sciences program housed in the department where I taught Media and Communication. The co-director of the program at the time was Lee Sheldon, a well-known game designer and writer. Lee had brought his original ideas on turning the classroom into a game with him to RPI from Indiana University. The ideas are described in detail in numerous case studies in Lee's pioneering book, *The Multiplayer Classroom* (Cengage 2012). As colleagues in the same department, I thought, why not ask Lee to apply his ideas to a fully online environment? The online class is especially well suited to an Alternate Reality Game approach that uses the Internet as its primary platform. Plus, Excelsior College's adult student body, many based in the military, provided us with a new kind of audience for a game/course.

1.2 Time and Money

Two immediate realities present themselves to any faculty member or designer seeking to innovate. First is the cost. It is essential to have a solid cost estimate for development at the outset. Any innovation will cost more than traditional development. In terms of cost, you need to decide whether to develop internally, outsource, or use a combination of both. Second, and correlated with cost, is the development timeframe and process. Again, innovation is an experiment, something new, and, consequently, requires time. Later, you can use the initial experiment to formulate a more precise development model for future innovations. Flexibility is always essential. Let me take these immediate factors in order.

In considering a game-based course, you need to determine early on the type of game-based intervention and how technologically enhanced the course will be. Developing a full

scale 3-D environment would be prohibitive, while designing a series of small games will not add substantially to your cost. An Alternate Reality Game (ARG) is narrative driven and requires no technology other than what would be expected from any other course. What matters is the story, and the integration of the story with the course content. In the first instance, the narrative is best created by an expert game designer, or, if there is a skilled faculty member (skilled in terms of creative writing) with game-based experience, the faculty member can write the narrative, but even here, a professional designer should serve as a consultant. In the long run, in-house development and in-house talent are most cost effective and efficient, but this requires a long-range plan for human resources and a professional development plan to cultivate internal talent. For certain, ARGs can be designed in-house by faculty from various disciplines given training, guidance, and support (Darvasi, 2015). In our case, we had extra money provided for three new courses, and this humanities course was one of those courses. Half of the money was outsourced to Focus EduVation, an Indiana-based international company that provides learning solutions for various institutions. Often, these outsourced projects are handled from beginning to end by the vendor, but in this case, Focus EduVation primarily provided videography. Videography is often important in a narrative-based course to convey the narrative, but most universities can and should be able to provide this service in-house. Money was set aside to hire a game design consultant. With most game designers or game design studios, the work can be contracted at an educational discount.

In terms of time, also a cost factor, the college's typical development phases were extended two months. In general, a game-based course might take from eight months up to a full year from original planning to the course premiere. The more a college innovates, the easier and quicker this process becomes. However, a game-based course, like a game, demands an iterative process, where the development loops back much more often than in a traditional course, so you must build in flexibility and understand that the process will not be linear. For guidelines, I suggest adding between two and six months onto the development process used for a standard online course. The extra time will pay significant long-term dividends.

2. INSTRUCTIONAL DESIGN AND GAME DESIGN

Virtually all online course development now uses instructional design services, and some colleges are also using these services for traditional courses. In no way is an instructional designer a substitute for a game designer or vice versa. These are two different skills sets. More and more instructional designers are including game design as part of their degree programs, and this should be a consideration when cultivating internal talent and hiring new staff. This hiring situation presented itself at our first major meeting or kick-off, where we discussed the roles and overview of the development process. Lee was invited as a

consultant, but I hired a Subject Matter Expert (SME) to design the course/game. I acted as the traditional Subject Matter Expert or content expert. The Game Design SME had an advanced degree in game design and was paid the same as a SME in our other courses (this, I suggest now, is not a best practice).[1] At the first meeting, discussing the story and how to integrate the story with the course outcomes and content, it became immediately clear that Lee Sheldon's grasp of game design and how to integrate narrative with coursework far exceeded that of the individual I had hired. This is no slight on recent graduates, but when doing a pilot or prototype, it is best to leave as little to chance as possible. Once a foundation is built, then work on hiring new part-time designers. At this meeting, I decided to ask and offer Lee Sheldon the role of full game designer/SME for the course and offer the original SME a secondary role, which she declined. This kind of decision might not be easy, but I can say without hesitation that I made the right call in this case.

Lee had designed his own courses as games and had a complete grasp of how to integrate the game narrative with the course outcomes in a seamless fashion, which made the preliminary stages of instructional design relatively relaxed. In terms of process, a game-based course begins with a concept document that outlines the narrative, characters, and mechanics of the game. The content SME then develops course content much as he or she would with any course. In the next phase, the designer creates the design document based upon the course content. The design document is highly detailed, just as it would be in designing a video game. The story of *Secrets* involved, as the course subject dictated, cyberculture. The genre was mystery/science fiction and centered around messages sent to the professor from the future regarding cyberculture. The story unfolded over the course in pieces, just as in a Sherlock Holmes mystery, and students worked on solving the course mystery as they worked through course assignments called investigative reports. Senior instructional designers focused on making sure the content aligned seamlessly with course outcomes.

3. IMMERSIVE LEARNING AND THE FOURTH WALL

The power of an ARG is its immersive nature. Just like the immersive world of *Halo* (Bungie 2001, Microsoft Studios) or other AAA games, the fictional world must be all encompassing. When students enroll in the course, they begin the game, and the game ends when the course ends. Immersion works through world building. What would normally be called modules were renamed episodes—as in a story—and assignments became investigative reports given back to the game master, i.e. professor. The Learning Management System must be modified to reflect this immersive fictional world. Our story would be delivered through short videos at the beginning of each episode. The two organizations fighting for the future of cyberculture, The Collective and Fortress 9, each

had a spokesperson, Audra Casey and Dale Kenyon, respectively, to convey the story and drive the conflict fueling the narrative. Lee wrote the script for each episode, and we "hired" people to read the script from a teleprompter, which was then videotaped, edited, and integrated with the LMS by Focus EduVation. If a college/university has a decent sized budget, professional actors are obviously best, but acting students, amateur actors, and talented volunteers are perfectly acceptable if coached. I asked a former president of Excelsior College's Board of Trustees, Dr. Joshua L. Smith, to play one of the characters, which he happily agreed to do.

3.1 Professor as Puppet Master

In ARGs, the person(s) pulling the strings or constructing the game is/are referred to as the puppet master(s). They are invisible to players, but actively engaged in the game. In a course ARG, the professor takes the role of puppet master, and he or she must be flexible enough to modify the game on the fly depending upon student/player interaction. In *Secrets*, the professor was created within the game as Professor Logan Grey. I always responded to students with the name Professor Grey and at no time did they know Professor Grey was a fictive persona. I made a Facebook page and LinkedIn page, as well as an email account for the professor. In order to allow other faculty to run the game/course, I created a Faculty Manual with all the necessary information for the fictive Professor Grey. Key roles of the puppet master are to manage the discussion forum effectively, supervise the non-playing characters, and maintain the fourth wall.

3.2 Non-Playing Characters (NPCs)

One of Lee's most brilliant moves was creating non-playing characters (NPC) for the game. In digital games, an NPC is a character driven by Artificial Intelligence (AI). In *Secrets*, the NPCs were two characters integral to the course narrative who participated in the course as students/players. Each character had a full background and photo provided in the script. To maintain the fiction, each character was enrolled in the course as a student with a fictive name. Volunteers at the college played the characters and always logged in with the fake LMS credentials provided by the Information Technology Department. The samewas true of "Professor Grey." I had to log in as Professor Grey, not as David Seelow, like I normally would. Each NPC participated fully in the discussion forum following scripts written by Lee, but allowing for reasonable improvisation depending on the class flow; each post needed to be made within "character." Other students taking the course for credit did not know the student NPCs were not actual students.

3.3 The Role of Information Technology

As the above information indicates, the college's IT department had a valuable role to play in setting up the fictive world. First, the faculty and NPCs must be provided LMS credentials.[2] The story calls for each organization represented within the story, such as The Collective, to have a website. These websites must be created and linked to within the LMS. IT professionals used WordPress to create the five fictional websites and populate the sites with information written by Lee. Although the websites are part of the course world, they are also live websites. We had to purchase the domain names for each site, and they are public, so, anyone could, in theory, stumble upon the sites. I did not anticipate what, in retrospect, should have been obvious. Students became so engaged in the story, they wanted to respond to the organizations after visiting their websites. This required some IT engineering. IT created emails for each organization so students could respond directly to the organizations. These emails then had to be routed to my college email. In turn, I had to respond to each email as if I were a member of that organization. The fact that students were so engaged in the game that they wanted to contact The Collective and Fortress 9 illustrates the power of the immersive environment and reveals the need to anticipate the unexpected.

4. GAME MECHANICS: INTEGRATING CONTENT AND PLAY

Game mechanics refers to the rules of play any game requires. In this case, the game play and the course performance were identical. As students worked through the course, they were playing the game. Each episode had a consistent structure: Overview, Essential Questions for the Episode, Resources for Investigations (links to reading, videos, and so forth), Investigations (the tasks students had to perform), and Review of Investigations (a summary checklist for student/players). The LMS homepage, in this instance, Blackboard, revealed only one episode at a time. Students engaged in the game and story episode by episode. In the overview section (Essential Question, Game Objectives, Forum), which students first encountered in an episode, the story videos were presented. The narrative and engagement with the narrative is primary, so the initial discussion forum always tied in directly to the story at that point in time, requiring students to comment on what Audra Casey or Dale Kenyon said in that episode's video.

4.1 Diverse Voices and Rich Learning

The investigations allowed for a wide variety of learning styles and diverse ways for students to document their learning. As in any good game, there are multiple paths to success. For instance, students made a critique of a Facebook or LinkedIn page (giving players choice), then created their own page and sent a screen shot to Professor Grey. They maintained an online journal, wrote an Internet Manifesto, created a timeline detailing

their experience of *flow* (a key concept in immersive game play based upon the work of Mihaly Csikszentmihalyi), and took challenges. A challenge functions much like a traditional quiz, but the challenge also moves the player forward and ties in with the course narrative in terms of the need to overcome obstacles on the road to solving a mystery. Challenges had symbolic names like overcoming "The Flood of the Information Tidal Wave" (represented through original artwork illustrated by an employee). Indeed, the use of original art work, as shown in the below illustration (representing a challenge about Dave Eggers' novel *The Circle* [2014]) added an immersive and fun component to the dry nature of most "quiz" or "test taking" experiences.

FIG. 1: The Circle Trap (Permission to use granted by artist EJ Forget)

The most demanding investigative report required players to compose their own digital autobiographies. This task required players to use multimedia to tell their stories of living within cyberculture. Each episode, the student contributed a chapter to his/her overall story. In the final episode, they could revise and rework their stories in any fashion, abandoning any notion of linearity, if they so chose. Requiring each chapter to be submitted episode by episode helped to make sure students had a manageable timeline and allowed the professor to give ample feedback on each chapter. Again, student choice

is invaluable, so students could use any tool they felt comfortable with, from Prezi to Storify to Weebly to Popplet.

4.2 Seamless Integration

The need for the content expert (SME) and game designer to work well together cannot be emphasized enough. The game and content have a reciprocal relationship and advance each other. Succeeding in the game is succeeding in the course. Let me return momentarily to the role of the professor as puppet master, and even more so to the role of the professor in an online environment. As I mentioned previously, students do not pay high tuition costs for a full-time professor to be a peripheral figure. This must be true for online learning, if full time faculty are to be more involved in online teaching. The much-repeated idea that online learning shifts the professor from sage on the stage to guide on the side is simplistic, inaccurate, and harmful to online learning. At no time should a professor give up being a sage. Faculty spend many years cultivating their expertise, and that expertise needs to be shared with students. Mentoring and coaching are valuable, but not sufficient. For example, in a flipped classroom, the professor's lecture might be recorded for out of class viewing, releasing the professor for more hands-on work in the classroom, but the professor has still shared general or targeted knowledge in the video lecture and applied that knowledge in a more group based fashion during class time. MOOCs have brought famous professors before thousands of students precisely through these short video lectures combined with the professor's custom designed learning material. In *Secrets*, in addition to managing the forums, I recorded video lectures for each episode. I wrote out the full script for each episode, first. These scripts ranged from 17 to 30 pages. I then indicated within these larger scripts where breaks would occur in the taping. Thus, one script served three or four lectures. Focus EduVation recorded all eight lectures over two full days using a blue screen and teleprompter (both very helpful, but not essential). Later, the videos were edited into smaller chunks of mini lectures, which work best in online learning. Focus EduVation also added computer animation post-production, but this would not be necessary in most courses. In other words, the professor's sagacity manifests itself through a series of short lectures, managing the forums, and overseeing the direction of the course.

For example, Episode 6 of *Secrets* is called “Wolf in Sheep's Clothing,” and the story addresses what might lie behind the fictions or personae individuals and organizations present in the virtual world. The story ties perfectly to my two lectures. The first, “Simulation and the Desert of the Real,” addresses the work of French social philosopher Jean Baudrillard (6 minutes and 54 seconds), and the second lecture (called “Briefings” in the game, i.e. Professor Grey briefs the team on the investigations they will undertake) focuses on the film *The Matrix* (1999, the video is 7 minutes and 16 seconds),[3] which

students are required to watch. Thus, the course content—from investigations, to online forums, to the professor's briefings, to the game narrative—is all seamlessly interwoven into the game.

Although video lectures, like animations and other interactive experiences, should be short, they do not need to be minimalistic. Students can and should be able to pay attention for more than three minutes at a stretch. They certainly do in a traditional classroom. What really matters, I reiterate, is the need to integrate the game and content at every point.

4.3 Fun

Another game element that a game-based course needs to stress is fun. More than anything, student feedback has pointed out how much more fun S*ecrets* is compared to their other online courses, which are all too often perceived to be formulaic and dull. Fun does not mean easy. On the contrary, *Secrets* demands more from students than any other 300 level course I have taught in over 20 years of teaching. Students like the variety of composing a multimedia autobiography and the challenge of difficult investigations. Challenges are fun. How many games make use of puzzles and puzzle-like structure? Too many to count. *Secrets* is built around a large puzzle, but there are smaller puzzles to solve within the course about who is who and what is what. The narrative also keeps students off balance through unexpected twists and turns that I do not want to reveal. One short investigation that students faced that most of them really enjoyed happened in Episode Four: "Change of Hart." This episode addressed online dating and relationships, and included watching and discussing the film *Catfish* (Joost, Schulman, 2010). Here is the investigation students had to complete:

> "For this report activity, you must choose a partner from the class. Create an imaginary dating profile—use your avatar from Episode One—and send that profile to your partner. You must then compose an email responding to your partner's profile using Blackboard's My Messages system. Your partner must then respond to your initial email and vice versa. Each time you respond you must remain in character with your avatar. You must exchange a minimum of 6 emails each."

My point being, allow students/players room to play and have fun as they learn, and be imaginative in your assignments. There is more to online learning than writing papers and posting to a discussion board.

4.4 Experience Points

Grading is always a tricky business in education. Professor Sheldon's use of Experience Points (XP), based on video game scoring, to replace traditional grading schemes may be

the most ingenious and easily transferred game element that benefits learning. Lee's pioneering method reached widespread attention through Jesse Schell's widely listened to and viewed 2010 DICE talk, "Designing Outside the Box." Experience Points build a positive mindset. Students begin to earn points and progress the minute they start the course. They move from zero upward, not 100 downward, as in traditional grading schemes. I have taught *Secrets* five times, and each time the student response to the use of XP over traditional grades has been unanimously positive. As a basic rule, you assign the most points to the most difficult assignments, and the assignments, like challenges or quests in a game, should be more difficult as the course/game progresses. Experience Points also make the use of bonus assignments especially appealing to students. Two final points about XP: You need, as Lee Sheldon writes, "...enough assignments to replicate that aspect of gameplay (many opportunities for XP) and rewards (many opportunities for incremental rewards)" (58). More assignments also allow for more feedback, and more feedback allows for more learning (i.e., you cannot assign just a midterm and final or the equivalent). Finally, as in games, failure must be reframed as a learning opportunity and not an end state. For example, give students more than one go at a challenge to promote persistence and success.

5. IMPLEMENTATION

5.1 Playtesting

Two areas of implementation deserve particular attention. First, nothing is more important to game designers than playtesting. You cannot release a game that has not been thoroughly playtested by different potential audiences. Playtesting needs to occur early on, before too much time and money has been invested in a game. Courses present a challenge for playtesting; nonetheless, this stage of development should not be ignored. After building a single module or unit, you should test responses to that module by asking people to play through or "take" the module. You can do this by using alumni, employees, faculty (part- or full-time), or current students (in this case, a small stipend probably needs to be offered—perhaps a free text book or something of that nature).

Also, the first iteration of the game/course should be treated as a pilot or prototype, and revisions should be made before the course/game is offered a second time. This means foregoing enrollment for a period, but this immediate sacrifice pays long range dividends, while letting a game-based course continue without revising sets you up for many avoidable problems. In the case of *Secrets*, the course (at least as of this writing) is offered in the fall and summer, but not spring. The spring term is wisely used for revisions and updates (think of video game releases that occur over time with different, improved versions).

5.2 Enrollment

Anytime you offer an entirely new course, you want to attract students, ideally students who are new to the major or institution. You also need to keep a pilot manageable. We set the initial cap for *Secrets* at fifteen. The title of the course and its description are critical. Students need to be aware that this is a game-based course or an innovation that offers them a different kind of learning opportunity. You should stress the game aspect in the course description; this prevents disgruntled and surprised students and helps build a successful pilot student group. Word of mouth will do the work after the premiere offering. For *Secrets*, we changed "Culture of the Internet" to "Cyberculture," made sure to indicate the game nature of the course, and drew attention to its uniqueness. (Have you ever seen a course entitled *Secrets*? Not likely.) I credit Lee Sheldon with the final designation, *Secrets: A Cyberculture Mystery Game*. The course description written by me follows:

> You want to have fun and learn at the same time? Take this course. Few forces in modern history have had such a wide-ranging effect on our contemporary identities as the global expansion of cyberculture. The Oxford dictionary defines it as, 'The social conditions brought about by the widespread use of computer networks for communication, entertainment, and business.' This course provides you with an authentic learning experience and is unlike any other course you are likely to have encountered. It is a game. Go on multiple quests; accumulate experience points, engage in lively Internet forums and work together to solve the Internet mystery at the heart of the course. Throughout your game play you will explore essential questions about how and why the Internet has changed and continues to change your sense of identity. You will create your own evolving digital story as you analyze, evaluate, and reflect on cyber-based phenomena such as social media, online games, Internet relationships, and engaging virtual realities represented by *The Matrix* and *Snow Crash* and games such as *Deus Ex: The Human Revolution*. Complete the course and you are a winner. Register now, and let the learning game begin!

You should promote the course through typical channels—advertisements, websites, social media, and mailings. Make sure to have advisors or faculty doing advising experience part of the course so they can make informed recommendations to students. Finally, we created a trailer much like you would for a feature film. Trailers must be short (ninety seconds) and compelling. Lee wrote the script, Focus EduVation added recommended images, a colleague and friend, David Sherman, a composer from New York City, created the soundtrack (indispensable for a trailer), and then Focus Education put together the final product following a few revisions. A trailer can also be created in-house and presents a terrific opportunity for a film or cinema department and its majors.

5.3 Evaluation

The evaluation and assessment of any innovation or pilot is vital to the pilot's success or "failure." How you measure success will depend very much on each institution or faculty member's goals. For us, the use of a pre- and post-course survey, integrated in the orientation section of the course, and then again in the final episode, was of vital importance. You can also use enrollment figures, grades, retention, and student comments—discerned through discussion forums, follow-up interviews, and control-experiment groups (i.e., compare a game-based version of the course with a traditional version of the course). *Secrets* has been a resounding success. In five iterations, never has more than one student dropped the course. Enrollment this final time for me has reached capacity. Grades have been almost entirely in the "A" and "B" range, and no student has failed the course. Last term, I received outstanding final projects, two over 40 pages and the same quality of postgraduate theses. What speak best to success, however, remain the voices of the students who have taken the course. Here is a small sample of their comments (the underlines are mine, for emphasis).

5.4 Student Voices

> "I have thoroughly enjoyed this class! It is a very different way of learning, as well as critical thinking, and I think those two combined into one class has been very beneficial. I don't know about the rest of you, but I have even managed to learn a lot about myself I didn't realize until this course." –Tracey

> "This class has most definitely been interesting to say the least. I never can tell where it is going, and it keeps one on their toes. *It is very much different than my other classes and makes taking it rather fun instead of just a hassle like some of my other classes have been.*" –Jason

> "This class has been a real eye opener for me. I got to explore things about myself that I did not ever think to evaluate." –Gemma

> "First things first, this class has been interesting. The most 'outside the box' class I have ever taken, and I am certainly glad that I did. Not only has it broken up the existence of my three other business classes, I have had the privilege of chatting with all of you and getting to learn so much." –Sarah

> "I have enjoyed this class, which is surprising. I am a black and white, numbers and facts person. I spend more time researching what is and must be based on science than I do considering what could be. Over the last few months I have become more creative than ever before. Solving a mystery while being immersed in it has intrigued me, and I look forward to what each one publishes so I may have better insight. The number of ideas we have is amazing and the lack of conflict is refreshing." –Philip

> "I am saddened that this course will be over in about three weeks. This has been one of the most unique educational experiences that I have ever encountered in my life. I love the informal style of interaction that allowed me more time to think about what I was saying rather than the form in which I said it. The encouragement to use multimedia was liberating, as one can be so much more expressive when not confined to the limitations of mere words, and a digital picture is worth a thousand SMS texts. I loved the experiential format of the course. Finally, I was happy to share this class with a group of very fun-loving and smart individuals (you know who you are), that made this a very creative and motivating exercise. Once this course completes in a few weeks, I will have earned my bachelor's degree, something that I dropped out of back in 1976 from the University of London because I ran out of funds and had to get a job. While I am excited about finally completing a quest that I began 40 years ago, I am sad that our paths won't intersect in other Excelsior courses after this one, as I could have been friends with many of you. ***So long, and thanks for all the fish!***" –Akmal
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> "Out of the last couple of years, this has been the most enjoyable class I have attended, online or in person. Online classes have been very beneficial to me, as they allow me to perform at my pace and on my time schedule. This class has been a little different. I found myself reading almost all the posts and looking forward (i.e., daily) to what would be said or happen next. I must give a HUGE shout out to Professor Grey. Your interaction, feedback, and discussion comments on my posts and others have been appreciated. I am a numbers or black and white kind person. The interaction and set-up of this class made going outside of my comfort zone much easier, as well. Now I can be the sensitive guy my wife always wanted (just kidding—can't let her have everything she has dreamed about)." –Jeffrey
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> "What an interesting concept this whole class has been. I for one have loved it! Reading about the story of Chromogen Corporation was indeed a twist... Everyone we've listened to and watched for the last 15 weeks (for the most part) was an alias of some degree, meant to prove that you can be anyone you want to be on the Internet... for good or for bad. Letting the cat out of the bag, that goal is one reason I took this course to begin with. I have taken a lot of online courses, and this one stood out above them all. It is a different way to approach learning, thinking, and applying it to real life." –Tracey
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> "I agree. This class had a unique design. I was very interested where the mystery was going, and how it would turn out." –William

The comments speak for themselves and stand as testimony to the appeal and effectiveness of the course. Many people worked together to make the course a success,

and all deserve credit. I find a pleasant irony in the fact that Professor Grey—my game avatar—received more praise for this course than David Seelow ever has for the innumerable classes I have taught over the years. Yet, even this curious bit of information shows the learning power of the course. By the end of the game, students genuinely did not know which of their classmates were “real” and which were “fictional” NPCs. This result reinforced the theme that cyberculture complicates identity and reality in ways for which traditional psychology and theory fail to account. That, for me, is the ultimate triumph.

6. LESSONS LEARNED

In brief, I list some of the key points this game-based learning innovation in online education has produced.

- Be flexible or agile in the design process.
- Use a game design process, not a traditional course design or instructional design process.
- Add two to six months to the development timeline for your first game-based learning course.
- Hire a game design expert as consultant and use him or her often.
- Playtest—i.e., the first version of the course should be revised before being offered a second time.
- Keep the initial enrollment manageable.
- Develop clear metrics and outline what you want to achieve.
- Integrate content and game at every point.
- Use short videos for story delivery and lectures.
- Strive to preserve the fourth wall.
- The SME for a game-based course should be paid proportionately to the work involved.
- Anticipate the unexpected, and be prepared to revise on the fly.
- Experience Points are preferable to traditional grades.
- Students—including older, nontraditional students—enjoy and even thrive on the experimental nature of the game environment, and they respond especially well to multiple ways of demonstrating their knowledge. Test taking and writing academic papers does not do it anymore for college students, online or on campus.

7. CONCLUSION: THE RISK AND REWARDS OF INNOVATION

I have taught in the classroom for over 24 years and online for around 18 years. I have always experimented to engage students and keep myself active and presented texts that I believe can make a difference in students' lives. For my first course, *Mythology*, in 1989, I eliminated the textbook and have continued that practice ever since. In 1991, I introduced hip hop lyrics into my literature class, and in the summer of 2004, I created a course on *The Graphic Novel*. But none of these innovations has been quite as rewarding as *Secrets*. Online learning has fully established itself in higher education, and its importance will continue to grow. Unfortunately, in the years I have taught online, little creativity has manifested itself in the courses I have taken or taught. What I taught online in 2004 remained largely unchanged in 2014. The same can be said, though to a lesser extent, of the traditional classroom. This is unacceptable. Let me return to one of the students from S*ecrets* who, in response to a question about the future of online education, expresses my point perfectly:

> "In 20 years, I would love to see the online education system revamped to something closer to how this course is laid out. I want to see classes being interactive, digitally advanced, colorful and enticing, and most of all: Fun! With the millennials graduating high school soon, it is imperative that the online education system adapts to their upbringing, not ours. They grew up with video game style learning handheld devices, such as Leap Frog, and tablet games developed into learning classrooms. The rest of us grew up with books to read and study, card catalogs in libraries, and calculators were banned most of the time in a math class." —Jason

I use this quotation not just because it vindicates Lee Sheldon's design, my content, and the power of game-based learning embodied by *Secrets: A Cyberculture Mystery Game*, but more so because kids now learn with and through screens, beginning in preschool with touch screens and swipe technology. These kids will soon be in formal K-12 schooling and, hopefully, onward to higher education. Can we really pretend to think we are doing any service at all teaching students who play games and experience multimedia continually to learn using the same deadening methods we have always used? I cannot predict the future, and I do not propose game-based learning as the only solution, but I empathically maintain that game-based learning must be part of the present and the future, and furthermore that such methodology leaps beyond our current instructional methods by a considerable degree.

Innovation requires risk. Game-based learning is an innovation, and risk-averse institutions will be uneasy about such experiments, but these institutions will most likely flounder in the coming years. I end with a comment by one of the most astute students I have met in my

28 years of teaching. Akmal is a classic nontraditional student. His comments show the determination of older students as they strive to realize their educational goals while working, parenting, and serving the country. In Akmal's case, the degree is nice, but he has already established himself as a highly successful Silicon Valley entrepreneur with accomplishments many faculty have not yet achieved. Consequently, his perspective has earned a certain gravitas:

> I want to take this opportunity to raise my glass to toast our esteemed and innovative Professor Logan Grey for putting this excellent course together. …I am willing to bet that a course such as this one made a lot of conventional academics very uncomfortable, and it must have taken a substantial bit of persuasion on his part to convince them to let him rock the boat and actualize this venture. …[He] deserves to pat himself on the back for having succeeded in pulling it off and blazing a trail for others to follow when designing courses around gaming concepts like this one. He also deserves significant credit in this regard for inspiring the rest of us by not giving up in the face of a challenging project such as this. The informal, postmodernist nature of the course and his briefings leave lasting impressions, as education should, and we all walk away with both knowledge and wisdom experientially gained in such a brief time.
>
> Here's to you, Prof. Grey! May your successes multiply!...
>
> As for myself, the completion of this course also meets the remaining credit requirements for a bachelor's degree. It is a quest that I began 40 years ago and could not continue then because of financial circumstances that forced me to drop out. … Despite all other accomplishments in my life, the absence of a degree has always been a vacuum in my identity that has left me feeling incomplete and inadequate for so long. Now, after so many years, I finally have closure, and I am delighted that the journey ended on a fun course like this one.

I admire Akmal's persistence, his tenacity, and his insight. Indeed, I am a postmodernist, and game-based learning has a postmodernist bent, but really, the point he makes concerns the conservative nature of most institutions and the need for innovators to be, like Akmal, tenacious and persistent in pushing against the grain, challenging the status quo, upsetting and unsettling people. If you do not challenge, you are not innovating. I was fortunate at the time to have the support of three key people as this course developed and matured: First, of course, my colleague and friend, Lee Sheldon, a great game designer, wonderful writer, ceaseless innovator (and science fiction fan). Lee's skill made this terrific course a reality. Second, my former dean, Dr. Scott Dalrymple, a game advocate, game player and game enthusiast who has brought the power of video games to his new position as president of Columbia College. Finally, the support of Excelsior College's late

president, John F. Ebersole, a lifetime innovator in distance education and online learning. He created the framework for innovation. John passed away last November, and his belief in what I was doing finds some small realization in the success of *Secrets*.

I have never shied away from making either students or my superiors unsettled and uneasy; playing safe, doing what others do and what has always been done has a role, of course, but it does not make for much fun, much progress, or many breakthroughs in thought or action. I urge you to be in the vanguard, learn, experiment, and use game-based learning in some part of your work. Be revolutionary. That's learning, the Star Trek way.

NOTES:

1 The cost and time requirement for a game-based course is heavily front loaded. If your college or university has a game design program, you can certainly tap them as internal collaborators for such courses. If you need to go outside your institution, you can contact the Independent Game Developers Association local chapter or contact me at Revolutionary Learning for a list of expert designers working in education. Revisions and tweaks to the course can be made by the Subject Matter Expert or instructor, so the course can be run multiple times with minor change, making the long-range cost negligible.

2 No Learning Management System is an ideal environment for innovation. Make sure you test out ideas for LMS compatibility and development work with your campus LMS administrator when necessary. For example, Blackboard put a star next to each nonpaying student (the two nonplaying characters, the LMS administrators, course assistants and the program director), which tipped off enrolled and paying students that Tom Wetherall and Ann Bennett might be a different classification than other enrolled students. This demanded an easy work around, but one we did not anticipate and had to change after the course's premiere.

3 In terms of showing videos, I always require students to purchase or rent their own copies of films like *Catfish* and simply provide hyperlinks to websites like Amazon or Netflix. The same goes for games. This is no different than requiring a textbook and far less expensive than even a cheap textbook these days. Each institution will have its own intellectual property policies for a professor's video lectures. The institution can repurpose them or use them for publicity on their YouTube channel.

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