

CHAPTER 5.

THE WARD GAME: HOW MCMURPHY, MCLUHAN, AND MACGYVER MIGHT FREE US FROM MCEDUCATION

BY PAUL DARVASI

The Ward Game was born of despair late one night while I tried to work out how to introduce *One Flew Over the Cuckoo's Nest* to my senior high school English class. My graduating students were in the throes of *senioritis*, an annual descent into lethargy after university acceptances had been sorted out. Graduation was around the corner, and they were deeply committed to do the bare minimum with as little effort as possible. I had to introduce this novel in a climate of utter disengagement, but I thought the book was too good and the message too important to let fall by the wayside. What could I do to fire up their hearts and minds when they already had one foot out the door? How could I connect them to the world of Kesey's asylum while most of them wouldn't even bother reading the novel with prom and freedom so tantalizingly close?

I knew that my best chance at engaging them was to devise some kind of creative approach, but nothing came to me. It was late, I was tired, frustrated, and my ideas all felt flat and recycled. I was about to pack it in for the night, when I was struck by a comic image, likely induced by sleep deprivation. I saw myself sitting behind my desk at school, tapping at my laptop, wearing an oversized cartoony nurse's cap with a big, bright red cross. Weirdly enough, that image sparked a flow of ideas that led to the creation of *The Ward Game*: My English classes would become the psychiatric ward from Ken Kesey's classic novel. Students would be transformed into patients, playfully subjected to the mock-tyranny of a behaviorist regime. The game would be theatrical, ironic, satirical, unpredictable, oblique, self-reflexive and, ideally, insane. It would be a video game played in the real world. And maybe, just maybe, it could lead to a cure for *senioritis*.

ESCAPING THE SCHOOL ASYLUM

It's unnerving to consider how much a school can resemble an asylum. Both institutions strive to improve minds with the aim of producing functional members of society. Students and patients are extracted from the currency of daily life, institutionalized (often against their will), and subjected to a rigid diet of rules and schedules. They are placed in the care of authoritative specialists who keep records and reports on their charges, and failures to meet specific behavioral objectives are

corrected with medication, coercion, and punitive measures. This analogy is clearly reductionist and oversimplified, but it carries an air of truth, partially because asylums and schools (we may as well add prisons) share common industrial roots. They function as assembly-line systems that aim to mass-produce a more or less uniform product. That product being a cured mental patient, a reformed prisoner, and an educated student, all milled and buffed to contribute to the smooth operation of the social machine.

In his depiction of the mental hospital in *One Flew Over the Cuckoo's Nest*, Kesey specifically attacked the very industrial elements and behaviorist strategies that linger in schools today. So it wasn't too much of a stretch to blur the lines between reality and fiction and graft a game inspired by the novel's mental ward to my school setting. It worked particularly well with my school, as I teach all boys who begrudgingly wear uniforms, and the patients in *Cuckoo's Nest* are also all male and uniformed. The game was played during the final 30 days of school so their imminent graduation and release from high school paralleled their release from the asylum. This happy coincidence of art and life caused my students to reflect on how deeply the novel and its central themes connected to their own lives and institutional experiences.

I strove to design the game in such a way as to preserve the novel's oppressive atmosphere and narrative arc but also, paradoxically, to bestow my students with the freedom and agency to play as they saw fit. As patients, they were immersed in a pseudo-Orwellian asylum world run by the ever-vigilant and controlling Nurse Ratched, who encouraged them to spy on each other and maintain concentric rings of secrecy. However, while committed, they undertook self-selected tasks, played games, carried out personalized activities and missions, and created artifacts to gain points and work toward their release. Gameplay was carried out on laptops and mobile devices combined with real-life activities and events. I'm not a programmer, and had no dedicated software, so I cannibalized everything from our school's internal mail system to freely available online software to meet the game's requirements.

The Ward Game is a type of hack, a transgression and reprogramming of the traditional education system. It's a Frankenstein-like installation piece cocreated by my students and me that critiques some problematic aspects of schools as it explores and proposes some alternatives. It asks big and uncomfortable questions, and many aspects of the game are risky, disruptive, and messy. I teach in a unique setting and the game was played at a time of year when I felt empowered and supported to push boundaries and trusted my students to approach the game in the playful spirit with which it was cast. I have now run it with two consecutive graduating classes and both iterations went largely without incident, but I would not recommend transplanting the game wholesale to another school. Like *One Flew Over the Cuckoo's Nest*, *The Ward Game* challenges mass production, scale, and a one-size-fits-all approach to education—what I like to call *McEducation*. Rather than a product to be exactly duplicated, I share my experience as a model with the hope of inspiring other educators to see what is possible and channel their inner artist and designer to create their own games that correspond to their unique personalities, subject areas, and school cultures.

In the sections that follow, I'll outline gameplay specifics, but I'll also frame the experience within a larger context of how *The Ward Game* and the novel that inspired it point to a renewed perspective of what learning can become in the 21st century.

THE EPIC BATTLE FOR CHIEF BROOM'S SOUL

Before delving into the game, I'll quickly recap the story on which it is based, particularly the themes that have a direct impact on education. Ken Kesey's *One Flew Over the Cuckoo's Nest* recounts the tale of a group of patients in an Oregon psychiatric hospital who suffer under the iron rule of the tyrannical Big Nurse. The story lives in the collective pop culture consciousness primarily because of Milos Forman's 1975 Academy Award-winning adaptation starring Jack Nicholson as the rebel patient and bon vivant Randle Patrick McMurphy—The Big Nurse's archnemesis. The novel still appears on some high school and college reading lists, but it has been largely eclipsed by the immense success of the iconic film. Like so many adaptations, the movie is a significant departure from Kesey's novel. One key difference is that Chief Broom Bromden, the self-effacing schizophrenic Native American war vet who is the narrator and protagonist, gets only a small part in the film. Kesey was so upset that Bromden's character was sidelined to a supporting role that he successfully sued the film's producers. Again, art reflects life, as the novel's main plotline is that the rebel McMurphy helps recover Chief Bromden from social marginalization and invisibility.

Chief Bromden is a child of nature who grew up freely hunting and fishing wild salmon on his people's reserve, but who has now succumbed to the machine of war, government, and, most recently, The Big Nurse's ward. He is prone to hallucinations and sees the machines of industry everywhere, a paranoia that leads him to believe that his life is controlled by a powerful shadow organization called The Combine. In simplest terms, Bromden's spirit and individuality have been crushed by a factory society that seeks to impose uniformity and conformity. He exists in a tragic state of death-in-life, feigning deafness, refusing to speak, hiding in corners, and generally hoping not to be noticed. Bromden can represent all those who have been robbed of self-esteem and self-confidence for their inability or unwillingness to conform to the prevailing system. In terms of education, Bromden is the Chief of the lost tribe of learners who have been disregarded, demoted, drugged, coerced, and discarded because they did not subscribe to assembly-line schedules, conveyer-belt rows, quality-assurance tests, performance evaluations, and top-down authority. Look around you, look inside—you may find Bromden there. Look around any school and you may see him there too.

Kesey's novel is an epic clash for Bromden's soul, an extreme depiction of a battle that takes place in almost every classroom in the world. On one shoulder sits the proverbial devil: The Big Nurse, whose smooth beauty and angelic white uniform speaks of icy sterility. She sees all, controls everything, and exacts a punishing course of treatment that relies on humiliation, coercion, and medication to scrub her defective patients of their unique personalities. She embodies the industrial machine reducing human nature to a state of malleable docility. Her methods of discipline and punishment have left Bromden in the broken state in which we meet him. She is an extreme—an archetype that distills and exemplifies the most destructive elements of McEducation.

On Bromden's other shoulder we have his angel, the devilish rebel R. P. McMurphy, who resists and challenges authority and conformity at every turn. He's a convicted felon, a con man, a gambler, and a scam artist. But don't let that fool you—he also has the makings of passionate and inspiring teacher—a resourceful and creative critical thinker who favors expression over repression, celebrates individuality, takes risks, embraces failure, and cures the patients with a curriculum of games, motivational speeches, embodied learning experiences, collaboration, and friendly competition. Ultimately, his unorthodox techniques save Bromden from the machine and help return the Chief to

his natural state, allowing him to reclaim the rivers and pastures of his youth and recover his true identity and self-worth.

The clash between The Big Nurse and McMurphy's approaches to cure Bromden are the collision between our industrial present and the emerging digital future in education. The beauty of *One Flew Over the Cuckoo's Nest* as the narrative source of *The Ward Game* is that the players not only embody the events of the novel, but they also temporarily inhabit and reflect on a concentrated microcosm of the flawed education system and society that has shaped them.

COOKING WITH GAME MECHANICS

Whether board games, video games, pervasive games, or sports, game mechanics are the rules and constraints designers employ to make games fun and engaging. These might include rolling dice, eliminating an opponent's pieces, using a timer to limit task completion, or drawing a card from a deck. When I first designed *The Ward Game*, one of my tactics was to search for lists and explanations of game mechanics on the Internet and to choose the ones that I thought would best fit the game, engage and motivate my students, and express the novel's narrative. Besides accessing lists and catalogs of game mechanics, teachers might be mindful of how they are being entertained when they play games themselves and think about how they can apply these principles to their practice.

Game design involves much more than simply throwing mechanics and reward systems together. A balance must be struck between all the moving (and stationary) parts to produce an enjoyable and engaging experience. Like all art forms, including the art of teaching, this is achieved with a combination of knowledge, instinct, dedication, and trial and error. In the section below, I survey a series of gameplay components, or mechanics, that were used in *The Ward Game*. Rather than a recipe, it's a list of ingredients that any motivated educator or designer can draw from to produce his or her own creation. However, before embarking on a description of some of the individual mechanics, it would be useful to review the first day of the game, as this is how players are first drawn into the world of the asylum that was formerly their school.

SESSION 1: ADMISSIONS

On the first day of play, students arrived to class to find me, their English teacher, in a lab coat bearing a cartoonish oversized "Dr. Spivey" name tag. I was curt, officious, and edged with slightly menacing tone as I ordered them to sit down and listen carefully. I addressed the players as patients: "Welcome, patients" and individually I referred to them as "Patient Smith" or "Patient Patel," a practice I would maintain throughout the game. Once they'd settled in, I introduced myself, welcomed them to the ward, and reviewed some basic expectations and regulations, as well as the session's (no longer called "class") agenda. I explained that they would strive to earn up to 100 points on the Mental Metric Scale, which would then translate into 10% of their English grade. They had 30 days to achieve the highest score possible, and if they reached the 100-point maximum before the chronological end of their stay at the ward, they'd be discharged or released early, at which point they were free to use their time as they saw fit. Many were visibly enticed at the prospect of an early release.

I projected the online calendar that normally contained class agendas, homework, and relevant links to show that it had been modified and renamed The Bulletin Board. Inspired by the ward bulletin board in the novel, the redesigned webpage served a similar function to its predecessor, but with a

decidedly institutional flavor. Session agendas, rule updates, and new elements to the game would be posted here. Because the page was visible to other members of the school community, a number of the links on The Bulletin Board were password protected to prevent prying eyes from accessing sensitive ward information. Players were provided passwords on a need-to-know basis.

Next, I introduced all-seeing Big Nurse by projecting her admissions video prominently on the classroom screen. What began as an unusual class took a sharp turn for the bizarre. The Big Nurse was their teacher in drag, with a 5 o'clock shadow, misapplied lipstick, and a cartoony nurse's costume and shades that only added to the creepiness. Her voice was electronically altered using GarageBand, and the video was produced to look like a grainy and washed propaganda reel à la Big Brother. The video was received with a combination of shock and nervous laughter.

In the game, The Big Nurse never appears in person but communicates through social media, email, text messages, and the occasional propaganda video from her secret nurse's station. My design goal was to make her seem more daunting, mysterious, and powerful, but keeping her behind a wall of media also made it easier for me to portray multiple characters in a single game. After her brief introduction to her course of treatment and institutional philosophies, The Big Nurse asked that patients follow her on Twitter for an easy 5 points (see Figure 1). The Twitter account was tied to The Big Nurse's Facebook page, so that players would be alerted to any updates.



Figure 1. The Big Nurse video.

After the video, I distributed bright pink forms with The Big Nurse's blue logo printed on the top right-hand corner. Employing a common fascist propaganda strategy, I branded the game with The Big Nurse's logo on every possible document, artifact, social media site, and video. The pink sheet was a Ward Policy admission contract that, when signed, "committed" patients to the ward for 30 days (see

Figure 2). I playfully blended the language of a medical release form with the user agreements that players must accept before installing a video game. The document set out the basic rules, but I wrote them in an ambiguous and porous way to allow for the rules to be changed and altered on the fly.

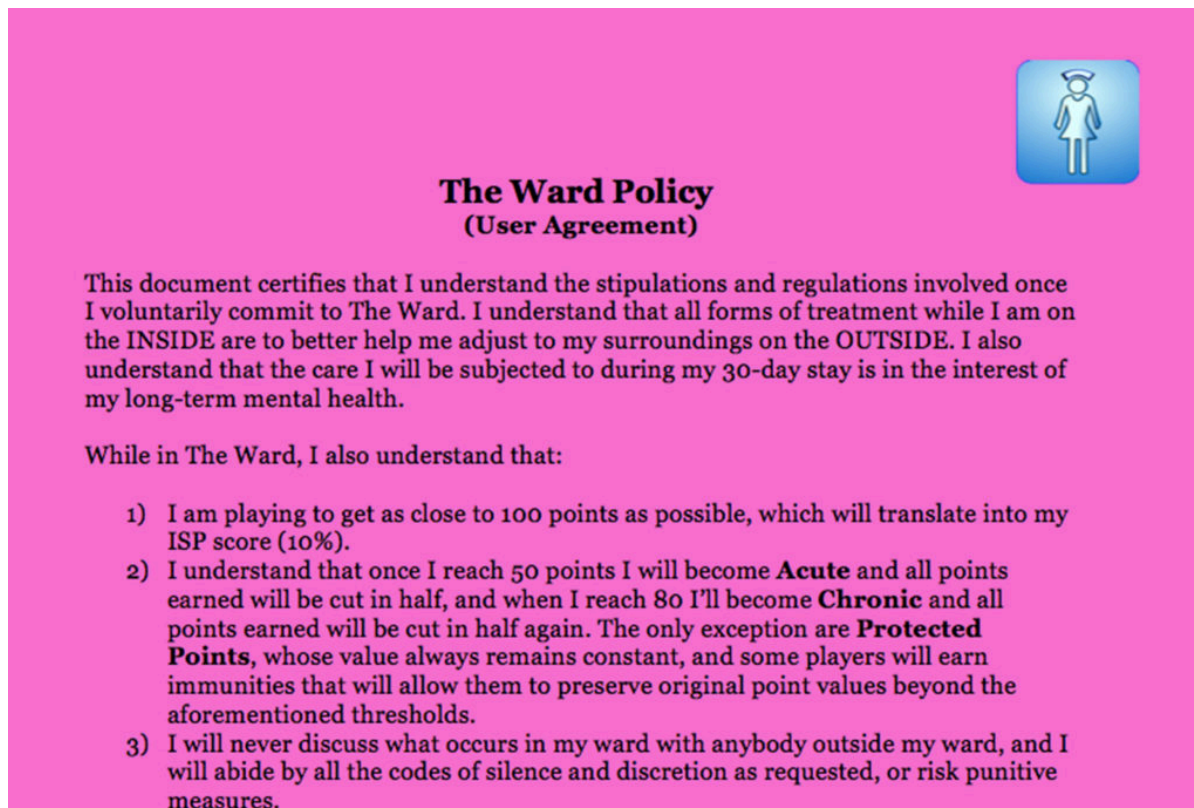


Figure 2. Part of the Ward Policy document.

Once the contracts were signed and returned, I told players that they had to create lockers and journals by the next session. The “lockers” were Google Sites pages and the “journals” were online blogs that they were instructed to embed in their lockers. The lockers were used to house a miscellany of player-generated data: records of completed missions, images of artifacts, personal point tallies, achievements, and any other important items or documents that they picked up during their stay in the ward. Throughout the game, players were prompted to write brief, directed entries in their journals. Once created, each locker URL was sent to The Big Nurse, who tracked them from a master page. I reminded them that The Big Nurse could enter any player’s locker at will and read the journals whenever she liked. Furthermore, I warned players to keep their lockers secure, as some of their fellow players might succumb to the temptation of gaining unlawful entry for reasons yet to be disclosed. Murmurs erupted as they wondered what would cause them to break into each other’s lockers. This never actually happened, but I learned that seeding misleading tidbits kept them on their toes and contributed to the game’s atmosphere of paranoia. I also warned them that they could be subjected to arbitrary locker checks, and if anything were found to be missing or incomplete, points would be lost. Alternately, points would be gained if everything were in order and up-to-date. Locker checks were determined by randomly picking cards from a deck marked with each player’s name.

Each player then had to take out his “Authorized Edition”—the exact required edition of *One Flew Over the Cuckoo’s Nest*. I took each book in turn and placed a sticker on the front cover printed with

the patient's name, a unique serial number, and The Big Nurse logo (see Figure 3). They were told that they must have the Authorized Edition with them for every session, and a failure to produce it upon request would lead to punitive measures, including the possible loss of points. The players-patients were thus numbered and serialized, all uniformly reading the exact same edition of the book.

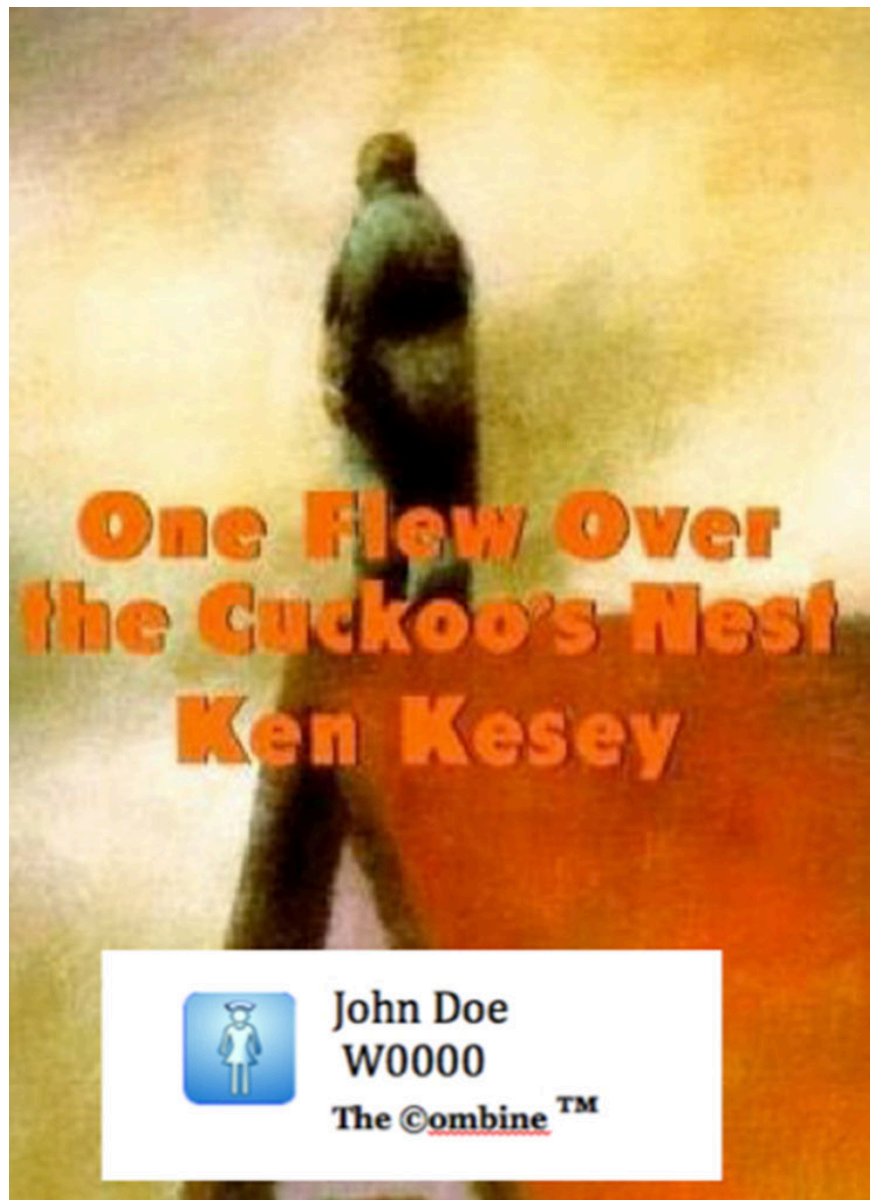


Figure 3. The Authorized Edition with patient ID sticker.

I ended the first session with a few quick rounds of a mini-game called *Random Admissions Interview*. I shuffled a standard deck, each card having a sticker with a player's names, picked a card, and read the name aloud. Players could accept or decline to be interviewed. If they accepted, they were asked three content questions about the novel taken from their assigned reading. If the player responded to two out of three questions correctly, he received a sealed envelope with a bonus inside (see the "Envelopes" section below).

My final warning to the players before dismissal was that they could not discuss any aspect of the

game outside of their ward (class) other than with their ward mates. To ensure the observance of this rule, The Big Nurse offered to reward any player who sent proof of an “unauthorized discussion.” Players caught discussing the game out of turn would be punished with point deductions. Any damning evidence (Facebook and smartphone screen shots, audio recordings, etc.) had to be sent to an email address called The Log Book, where The Big Nurse would review it and act accordingly.

With a few minor variations, this session was repeated for each participating class.

SURVEILLANCE AND ESPIONAGE: THE BIG NURSE IS WATCHING

Mirroring the atmosphere of Nurse Ratched’s ward in *One Flew Over the Cuckoo’s Nest*, *The Ward Game* was enveloped in a cloud of secrecy and low-level paranoia. In the novel, Nurse Ratched keeps a log book at her station in which patients are encouraged to document any transgressions by their fellow inmates, which is why all evidence of unauthorized discussion in the game were sent to an email address also called The Log Book.

It’s not hard to imagine why this was one of the most exciting and problematic elements of the game. On the positive side, it is a faithful and immersive embodiment of the novel that discourages outside discussions of the game, lending it intrigue and mystery. Inversely, it seeded genuine mistrust among players and encouraged the violation of the oldest and deepest school-yard code: No snitching. I mitigated any potential fallout by taking measures to protect the identity of players who forwarded evidence to The Log Book, including denying perp access to the evidence produced against them, as it might lead them to the informant. If the charge were challenged, a committee of teachers would review the evidence to verify and confirm its validity. To soften the blow, first-time perps were sent an initial warning from The Big Nurse (see Figure 4), and only repeat offenders were actually docked points, which happened on only a handful of occasions. In the end, no visible disputes arose, but the potential certainly existed. Further design changes could preserve this element of the game to eliminate the possibility of bad feelings or retribution.

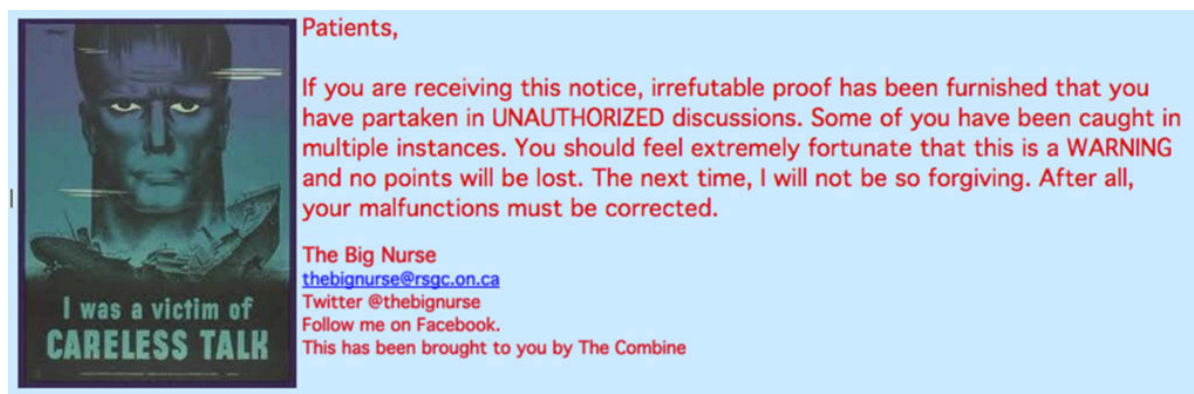


Figure 4. A warning to patients caught in unauthorized discussions.

This mechanic is timely and relevant when viewed as a critique of the rise of surveillance in the digital age. Will low-level paranoia become a norm in a society where, at any point, individual, corporate, and government entities record our data and activities? Is it time for schools to start taking surveillance literacy and digital citizenship more seriously? Experiencing the perils of the invisible eyes and ears of

the digital world firsthand is an effective way to create awareness, even in short-term simulated form (see Figure 5).



Figure 5. The Big Nurse is always watching.

ROLE OF ROLE-PLAY IN PLAY

Whether assuming the role of The Big Nurse, Dr. Spivey, or others in the cast of nonplaying characters (NPCs), role-play was an important aspect of the game. I had six lab coats and name-tags handy, so that if other teachers and observers entered my class, they could also assume the role of a clinician from the novel.

Players themselves, however, were not asked to role-play. Most of my students would not be keen to stay in character or assume an artificial persona for a sustained period or at all. They were treated as patients but were not asked to act like them. There were some missions that players could choose that required they act like a character in the novel but, for the most part, they merely acted as themselves. I thought this created more buy-in and deeper immersion as their true, unmitigated personas were subjected to the asylum's mock tyranny, and their responses and actions would thus be genuine and unscripted.

ACUTES, CHRONICS, AND ESCALATING DIFFICULTY

The first time the game was played, scores started to add up at an alarming rate, as I had blindly

distributed points without considering the rate of accumulation. This was a significant design problem, as many players could conceivably earn 100 points and finish the game in a few weeks.

Typically, the further a player progresses in a video game, the more difficult it becomes. Inspired by this mechanic, I issued a “patch” advising players of a change to the point system. Once they reach 50 points they become *Acute* and all points earned were cut in half. Similarly, when players reach 80 points they become *Chronic* and the value of points earned were cut in half again (see Figure 6). For example, as a Chronic, the completion of a 10-point mission would earn the player 2.5 points. In the novel, Acute is the label for the curable patients and Chronics are those considered incurable. In a reversal of the expected outcome, and keeping consistent with the novel, this system implies that the patients’ mental health deteriorates the longer they are subjected to The Big Nurse’s course of treatment.

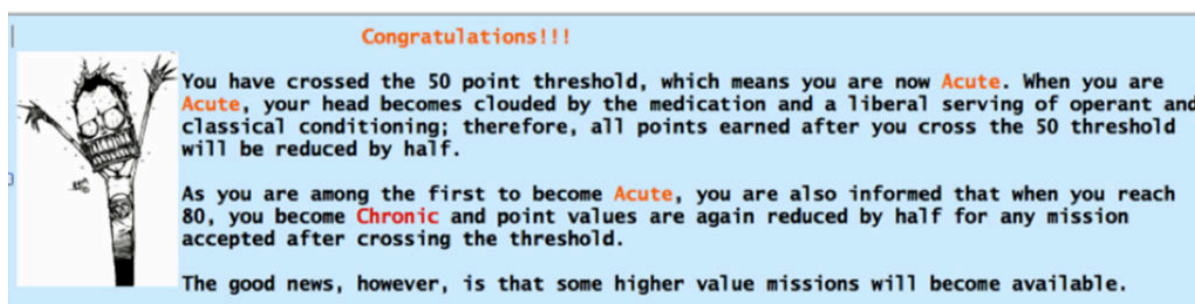


Figure 6. An email notice that a player has become Acute.

Some of my colleagues with whom I shared this solution wondered if players would take my on-the-fly modification badly. I was, after all, fiddling with points that equated into grades. Technically, the contract provided for this type of flexibility, but legalities do not always satisfy justice. My students would riot if I changed my grading rules to their significant disadvantage halfway into an assignment. Oddly enough, I did not receive a single objection or complaint.

Why such a forgiving attitude? Maybe many of the players are lifelong gamers who innately understand the value and necessity of escalating difficulty. Also, university acceptances were in, so grades were not quite as important as they had once been. I’d like to think that a number of players welcomed the change as an additional challenge with the prospect of prolonging the game. Finally, players realized that the game was a work in progress and perhaps sympathized with my predicament. Maybe they were simply too scared to confront The Big Nurse.

Keeping track of points was extremely time consuming. I had no dedicated software, so I tallied everything with pen and paper, updating scores every few days. This could be easily rectified with an Excel spreadsheet or some other automated system that would create a tighter feedback loop so that players could reap more immediate gratification for their actions.

GAMIFICATION AND THE TWO FACES OF MOTIVATION

A discussion of points in games played in educational contexts leads to a consideration of extrinsic versus intrinsic motivation and raises the specter of *gamification*, or applying game mechanics to a nongame context. As with many new words, its definition remains somewhat fluid, and different

parties have appropriated the term in different ways. Without delving too deeply into some of the controversy clouding the concept, I'll simply say that some designers and academics believe that gamification does not really create a game but artlessly slaps on points, badges, levels, gold coins, and leaderboards to extrinsically motivate participation. Those who malign gamification think this undermines the virtue of a good game, whose motivation to play should come from the game in and of itself rather than from the lure of external rewards. It bears adding that these external rewards are clearly analogous to grades and salaries in the games of school and life, respectively.

Ideally, students would not be motivated merely by grades, but by the love of learning, and workers would be motivated by a fondness for their labor and not their salaries, but this is clearly naive and unrealistic. My experience both as a classroom teacher and running *The Ward Game* has taught me that there are many people out there who are happily driven by extrinsic rewards. Ultimately, this points to a question of choice and the individual. I don't see a problem with an inherently good game also including extrinsic motivators. Players who respond well to extrinsic motivation should be granted the opportunity to satisfy this need in a game.

The Ward Game combines both intrinsic and extrinsic incentives. Players strive to earn 100 points and have the choice to amass money or badges (called Achievements), both of which are cashed in for points at the end of the game. *The Ward Game's* ability to motivate intrinsically is attested to by the numerous players who reached 100 points before the game was over and continued to play. There were also many players who carried out tasks or initiated activities that yielded no points or external rewards other than the simple joy of play. As the game's design evolves, I'd like to make the entire point system optional as well, granting yet more choice.

In the case of *The Ward Game*, the inclusion of both intrinsic and extrinsic motivators is also an artistic decision that expresses an important theme in the novel. To some degree, intrinsic motivation can be associated with McMurphy, who uses games, excursions, and the freedom of agency to incentivize the patients. Inversely, The Big Nurse motivates patients with a system of reward and punishment to exercise control and achieve her therapeutic goals. If the game is a proper encapsulation of the novel, it should include the two faces of motivation.

DAILY MEDS

A significant aspect of ward life in the novel is the consumption of daily medication, in which patients partake both willfully and by force. To embody this element of the story, players had the option to email Nurse Pilbow a medication request from 7:55 a.m. to 8:05 a.m. every weekday morning. If they succeeded in doing this for five consecutive mornings, they would be rewarded with 10 points. A single missed day meant that they had to start again. This was inspired by a video game mechanic called *appointments*, in which players must carry out an action at a specific time/place. It's a core gameplay feature of many online games, including the immensely popular *Farmville*.

THE MISSION SYSTEM

Missions are the central game mechanic in *The Ward Game*. Missions were designed to serve a variety of functions and interests, and they allowed players to manage their own schedules with much greater flexibility and independence than a traditional classroom structure. Generally, they were to be completed individually, but many also tasked players to collaborate. I first sent missions randomly

via email but later moved to a system in which players requested them directly from The Big Nurse. I'm now reworking the system to create a mission pool that players can access directly and pursue self-selected mission paths. Regardless of the delivery system, all missions were optional and could be accepted or rejected at will, preserving the element of player agency and choice. To keep in line with the game's clinical atmosphere, missions were called "prescriptions" during the game, but to avoid confusion, I'll continue to refer to them as missions.

A week before launch, I asked my students to fill out surveys to determine their areas of interest, whether art, business, writing, sports, science, math, and so forth. Whenever I sent a player a mission, I would review his survey responses and tailor it according to his interest. This strategy worked well, as most players accepted the first or second mission they received. Once accepted, players had to meet a completion deadline and, if not met, the prescription was considered failed and points were deducted. Every mission has its unique rewards that might include points, envelopes, in-game currency, and/or the option to complete further related missions. Missions were the game's primary engine of productivity, recruiting players to produce artifacts, carry out tasks, and help build, organize, and document the game. General mission categories and descriptions are listed below.

Creative Production Missions

These required players to respond creatively to the novel and included the production of creative writing, music, videos, fine art, and performance (see Figure 7). All tasks were related to the novel, and usually aligned with the part of the story being read when the mission was issued.

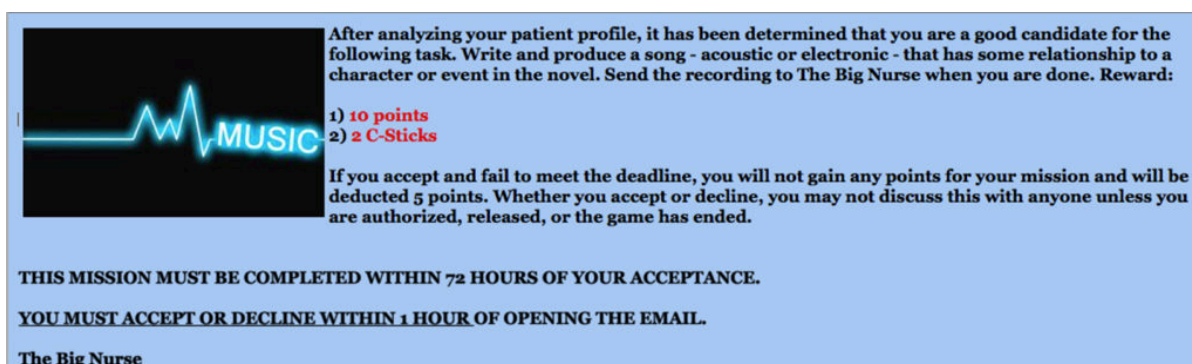


Figure 7. *Mad Music*, an example of a creative production mission.

Blind Collaboration Missions

In this subset of creative production missions, students created artifacts collaboratively without knowing they were working with other players. For example, a player was asked to write a two-page script humorously describing how schools resemble factories. Once it was completed and submitted, a second student was tasked to create a podcast from the script. Finally, a third player was sent the podcast and tasked to turn it into a short pastiche video. None of the players were told the origin of their source material, which was possible because missions were secret and could not be discussed.

Research and Synthesis Missions

Students were tasked to research specific topics, usually related to mental-health issues. These might

vary from finding out the name and purpose of certain types of pharmaceuticals (see Figure 8) to researching laws affecting those who suffer from mental-health issues. Depending on time constraints and relevance, the results of these missions were sometimes presented to their ward.

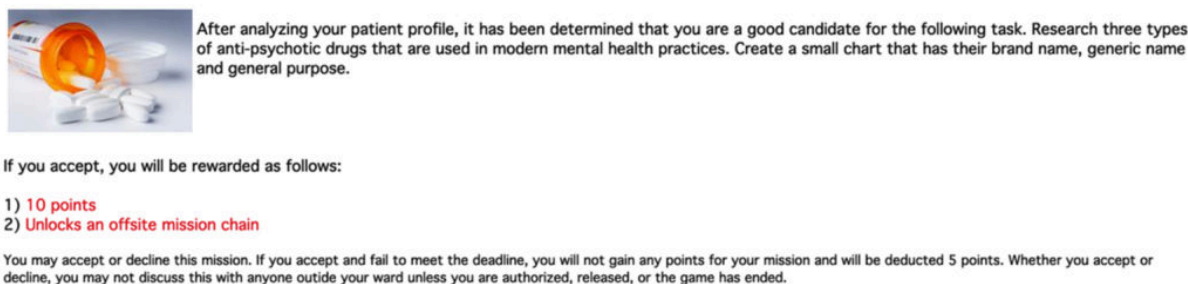


Figure 8. Pill Drill, an example of a research mission.

Organization Missions

Players were tasked to organize events such as a secret art exhibit or a basketball tournament, like the one that staff and patients played in the novel.

Documentation Missions

These missions helped document the game as it was played. While I was busy running the game, these missions enlisted students to film, photograph, and record a variety of events during gameplay. The items and artifacts generated by the creative missions and other undertakings also became part of the game's documentation.

Game-Building Missions

Much like the documentation missions, this family of missions tasked players to contribute to the growth and development of the game. For example, these included designing the in-game economy, writing a speech for a Big Nurse video, designing propaganda posters, authoring missions, planting QR codes and devising corresponding clues, producing images and videos that would become part of a larger treasure hunt, and so forth (see Figure 9). These missions grew from my having moments of feeling overwhelmed and outsourcing tasks to keep the game rich, engaging, and varied. Players often did not realize that their missions were part of a greater project or that they were contributing to the design and construction of the game.

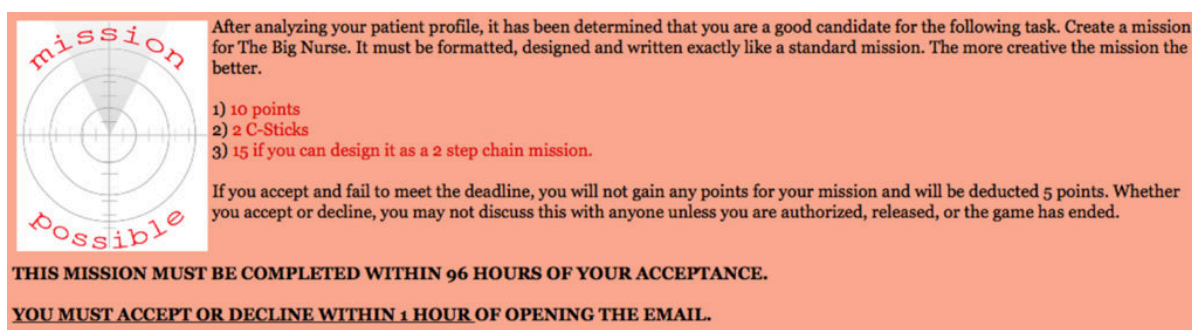


Figure 9. Mission Possible, an example of a game-building mission.

Ward Missions

During a few regularly scheduled sessions, players were given the option to undertake individual, small-group, and large-group ward missions. Individual activities varied from finding a quiet place to catch up on reading the novel to creating an infographic on some aspect of the story. Small ward missions for two to three participants might involve creating a one-page comic or poster. Large ward missions for four to eight participants included making short films or a trading-card set based on characters in the novel. Larger ward missions had an assigned project manager who would coordinate the group. All of these missions had to be completed within one hour. It was astonishing and impressive to see what players could produce while laboring under the pressure of a countdown timer, a mechanic common to board games, video games, and game shows.

Chain Missions

Some missions were chains, meaning that the completion of one mission unlocked the option to complete another thematically relevant mission. A good example is a mission that tasked students do some basic research around psychiatric pharmaceuticals. A chain of subsequent missions eventually led them on a self-directed visit to the Centre for Addiction and Mental Health (CAMH) and the completion of relevant tasks related to their tour. This was an important event, as the students were exposed to the reality of treating mental illness in an institutional setting, which they could compare and contrast with how it was being depicted in the novel.

GAMES, CHOICE, AND DIFFERENTIATED INSTRUCTION

Missions, quests, and challenges are effective means to create personalized and meaningful gameplay experience, which occasions a brief discussion on the importance of choice. As I've mentioned, I tried to individualize most aspects of the game to promote engagement and player ownership. Many conscientious educators try to apply differentiated instruction and cater to individual student needs. The problem is that despite best intentions, teachers who manage large classes with a broad spectrum of needs don't have the time and resources to successfully address each individual. It's unrealistic to expect that in a single year teachers can familiarize themselves with each student's unique profile and devise and follow through with an individualized learning plan. Looking down the road, perhaps computers and software may be able to help.

Video game developers have long known that a key to engagement is to allow players to customize in-game options to create personalized play experiences. A common strategy to foster individuation within games is to offer options and choice, whether it's choosing an avatar's class or hairstyle, following a unique skill tree, or simply ranging freely in an open world where missions and quests can be accepted or ignored. Players are motivated to proceed and persist because they enjoy the freedom and agency that let the game evolve according to their unique profile. Education can learn much from video games. Imagine the transformative possibilities if the design resources that go into creating high-caliber video game software were harnessed for the purposes of education. I don't believe that software should or can replace dedicated flesh-and-blood teachers—yet—but it can be a powerful tool to support and assist in getting the best out of their students.

Guided by one of *One Flew Over the Cuckoo's Nest's* central themes, *The Ward Game* celebrates the individual and strives to cater to each player's unique personality. On the narrative surface the game

satirically implements The Big Nurse's oppressive and unyielding regime but, in terms of functional gameplay, players have the freedom to choose their own paths. To begin with, they are given the option to play or not play the game at all. The handful of students who decided not to play undertook parallel independent-study projects on the novel. Those who chose to play could opt in or out of most aspects of the game, and they even contributed to the development and design of the game with unanticipated elements of their own devising. Even without dedicated software to help with individuation, no two players in *The Ward Game* had the same experience, and each played to his strengths and interests. This may explain why some of my most unmotivated students became the game's most productive players. They were released from a restrictive system that didn't gel with them and were given the freedom to play and express the best version of themselves.

There is, of course, such a thing as too much choice. Whether in a game, or any other type of pedagogical system, granting choice is an important strategy to help cultivate engagement and solicit the best an individual has to offer. I do believe, however, that there are limits to choice. Students will likely make choices that reinforce their strengths and interests, which is good, but this could easily become indulgent. Ideally, a well-designed system provides choice but also exposes learners to unfamiliar areas and encourages them to explore new knowledge and skills that they may not pursue of their own volition. Ultimately, a balance must be struck between guided learning and choice.

THE CIGARETTE ECONOMY

In the novel, the patients use cigarettes as black-market currency, but adopting cigarettes as the in-game currency posed an obvious ethical dilemma. It might be construed as an endorsement of smoking by fostering what advertisers call a "presence" and glamorize cigarettes in the players' spongy adolescent minds. I took this issue up with our principal, who suggested I get around the problem by calling them "cancer sticks," thus building a health advisory into the name. The name was eventually shortened to "C-Sticks" or, as some patients started calling them, "pixie sticks" or simply "pixies." I follow the word's evolution only to give a glimpse at how the game was such a cultural force with the player that it is spawned its own jargon.

In the first run I had used hard currency, but for the second I aligned with the modern world and digitized the entire economy. I added a column called "C-Sticks" to the online grade system so players could monitor their accounts at their convenience. Each player started with 10 C-Sticks and I modified their accounts when informed of transactions, or when C-Sticks were earned for completed missions or other activities. To facilitate transactions I created an auction and trading center in an open conference (essentially an online forum) on our email client called The Day Room. Many video games, such as *Diablo III* and *World of Warcraft*, employ auction houses, and in *Cuckoo's Nest*, the day room is the common space where patients socialize, play games, and conduct transactions, illegal or otherwise.

Players used The Day Room to buy and sell goods and services and conduct many of their transactions. Having it centralized to one place let me monitor activities and adjust accounts accordingly. The Day Room was extremely active, and money regularly flowed from one account to another. They would buy and trade envelopes, artifacts, passwords, and items and information necessary to complete missions. On a few occasions I received a notice requesting a C-Stick transfer without more explanation than "for services rendered." I let it go and complied because I was happy to

see that the economy had taken a life of its own and was clearly being used for real-world transactions. At the end of the game, players cashed in their C-Sticks for points.

ENVELOPES

Envelopes were an exciting part of the game's reward system. As with most in-game items, they were branded with The Big Nurse's logo and awarded for winning games, competitions, and completing missions (see Figure 10). Players who won envelopes pulled them randomly from a stack. Inside they would find bonus cards that could be saved, used, sold, or traded. Some examples of the bonuses are listed below.



Figure 10. Envelope with bonus card.

Password Hack

Players could request any in-game password from The Big Nurse.

Mission Extension 24 or 48

This card granted players a 24- or 48-hour extension for completing any mission.

Acute or Chronic Immunity

This valuable card granted players immunity to the loss of point value imposed at the Acute and Chronic levels, respectively.

Film Festival

I disallowed players to use images from the Milos Forman film for their artifacts, as I thought it curtailed their creative apprehension of the novel. This card temporarily exempted them from this rule.

Make It Stop

In *One Flew Over the Cuckoo's Nest*, Nurse Ratched controls the music in the ward, which consists of a short and mundane playlist with a heavy emphasis on Lawrence Welk. McMurphy is driven crazy by the repetitive music and pleads with Ratched for a change, which she categorically refuses. Staying faithful to the narrative, I played Lawrence Welk's "Misty" on repeat for entire sessions. Like McMurphy, players begged me to change or stop the music, but I ignored them. This card licenses a player to force me to stop playing Lawrence Welk.

GAMES WITHIN GAME

Throughout the game, I employed mini-games that strove to genuinely express an aspect of the story at the appropriate part of the narrative arc. These games-within-game generally reinforced knowledge of the novel's content and could be seen as creative and entertaining alternatives to traditional content tests. I've already discussed the first game, *Admissions Interview*, in my review of the first day of gameplay, and the others follow.

Pecking Party

Pecking Party is a competitive elimination game inspired by McMurphy's description of The Big Nurse's emotionally punishing therapy sessions. He compares the sessions to a pecking party, a term for a flock of chickens that peck each other to death one at a time. The point of *Pecking Party* is to eliminate all other players by stumping them with player-generated quiz-style questions about the novel.

The flock of players arrange themselves in a circle with Authorized Editions in hand, which they can access at any time. The first player to "peck" has 30 seconds to formulate a question that can be directed at any other player remaining in the flock (circle), who has 30 seconds to respond. If the victim responds incorrectly, or the time runs out, he is "pecked out" and must leave the circle. The correct answer does not have to be provided and the attacker can ask the same question of another player. Technically, a single player can eliminate an entire flock with one good question. If the victim responds correctly, he sidesteps the "peck" and becomes the one asking the questions, thus taking control of the game. The game ends when the flock has been wiped out and one player is left standing. The last three players to be eliminated all earn points that contribute to their overall total.

The Inquiry

In the novel, *The Big Nurse* holds a roundtable discussion with a group of doctors and clinicians from the hospital to discuss what to do with the troublesome McMurphy. In the game, it's the players as patients who undertake a similar discussion, which is a slight departure from the narrative.

The Inquiry is a structured discussion format based on the Harkness method, originally developed in the Phillips Exeter Academy. The method tracks each participant's contribution both in terms of length and content and provides a framework that promotes a balanced, deliberate, and constructive analysis of a concept and/or development of an idea. Participants gather around a conference table and are assigned roles such as timekeeper, note-taker, prompter, and so on to self-regulate and organize the discussion. Players were tasked to discuss the concept of behaviorism, for which they prepared by taking notes on a reading and two short videos on the topic. The discussion aimed to unpack three questions: How does behaviorism operate in (a) the novel, (b) the school as a whole, and (c) their specific ward (class)? A second session asked them to come up with a diagnosis and course of treatment for Chief Bromden.

The Inquiry is a team effort, and points were uniformly awarded to the entire group, albeit scores were sometimes modified for individuals who underparticipated or did not adequately fulfill their role.

Sefelt and Fredrickson

This game was inspired by the dynamic between two epileptic characters in the novel. A patient named Sefelt refuses to take his medication because he fears that his teeth and hair will fall out, and his friend Fredrickson seeks additional medications because he's terrified of having a seizure. Consequently, they develop a symbiotic relationship in which Sefelt secretly pawns off his pills to Fredrickson.

For this game, players are paired off, one becoming Sefelt and the other Fredrickson. Each Sefelt is given a paper medication cup with three candy pills, while the Fredrickson cups are empty. Each pair starts at zero and they are forbidden to access their books during gameplay. Each Sefelt and Fredrickson team is called up to the front of the class one pair at a time and have 30 seconds to collaboratively respond to a question about the novel. If they answer incorrectly or not at all they earn no points and the medication cups remain unchanged. If they answer correctly, a pill is transferred from Sefelt's cup to Fredrickson's and they each earn 2 points and move to the end of the order. Each pair has three opportunities to answer questions. If a pair answers all three questions correctly, in addition to the points each team member receives an envelope with a bonus inside.

The Fishing Expedition

Near the end of the novel, McMurphy takes his fellow patients and Dr. Spivey on a fishing expedition on a stolen boat. There are three rods on the boat, and the patients take turns to try and reel one in. For this game, a deck of cards is rigged with stickers depicting a variety of fish specifically mentioned in the novel, varying from lowly chum fish to the cherished halibut (see Figure 11). Most of the cards, however, are marked with a "Hell's Bells! Try Again!" sticker that indicates an empty line.

Three desks (fishing stations) are set up at the front of the class and, like the patients in the novel, the

players come up in groups of three to try their hands at the reels. Once players take their stations, I shuffle the deck and lay a card in front of each player. If they get a “Hell’s Bells! Try Again!” they’re automatically out and must move to the back of the line. If they receive a fish card marked with a point value reflecting the size of the fish (chum fish = 1, Chinook salmon = 5, halibut = 8, etc.), they are asked a question about the novel. If answered correctly, they receive the points marked on their card. If they are incorrect they are out. Once a round is over, three new players move up take their places at the reels.

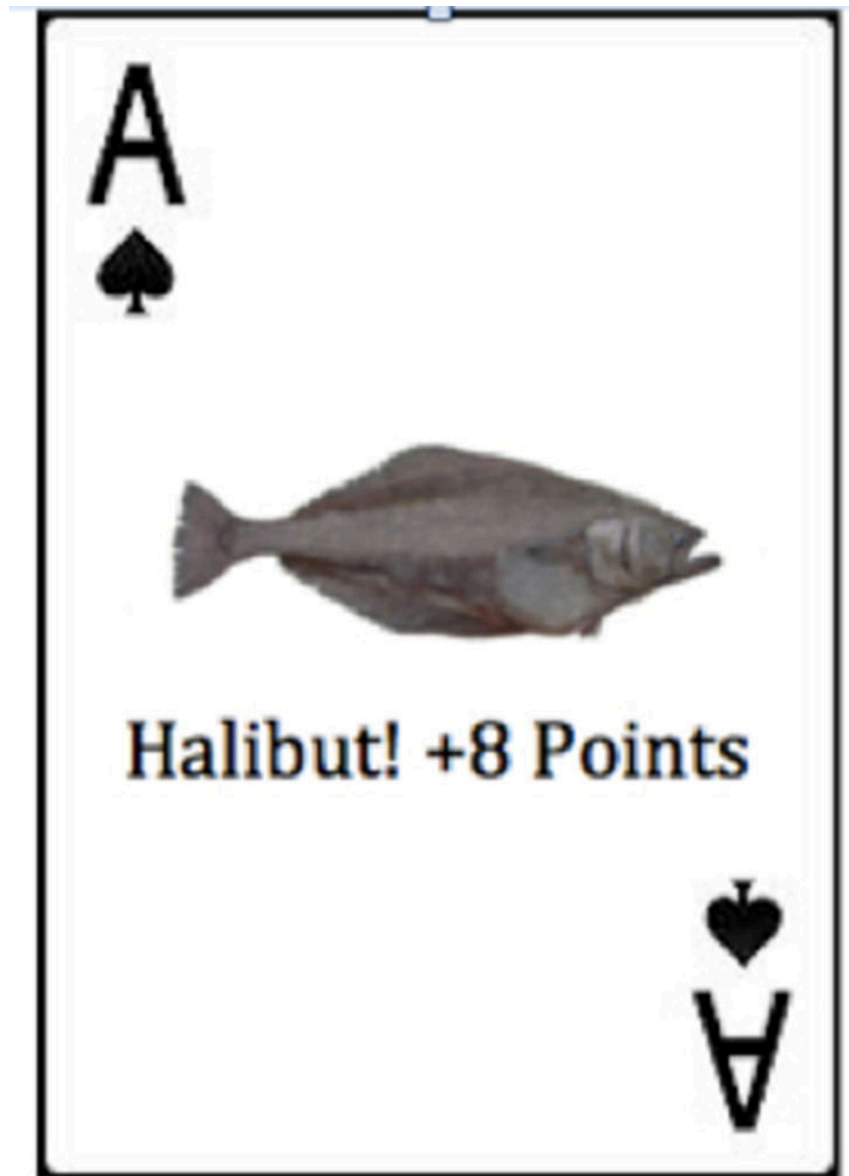


Figure 11. The cherished halibut card from The Fishing Expedition.

Aside from being fun, the advantage of these games over tests or quizzes is that they are a union of form and content. The way in which players are tested for knowledge reinforces a narrative element of the text. Questions about the fishing expedition, for example, occur while on a simulated fishing expedition. Also, the questions and answers are spoken aloud, allowing all players to listen in and strengthen their understanding of the novel’s content.

TREASURE HUNT: THE STOLEN BOTTLE OF DILANTIN

At the end of the second week of play, a very angry Big Nurse issued a video announcing that the ward's medicine cabinet had been broken into and a large bottle of Dilantin stolen (see Figure 12). Any player who found the bottle would receive 100 points and become automatically discharged from the ward. The prospect of a perfect score and quick exit instantly caused a stir. To find the missing jar, treasure hunters had to solve a long and complex trail of clues that included videos, passwords, puzzles, and ciphers that were accessed through hidden websites and QR codes. I'd enlisted players who unwittingly created clues for me through missions.

There was lots of interest in the hunt but, sad to say, no player made it past the first few clues. I knew it was doable because in the first year I ran the game two students successfully finished a similar hunt with many of the same clues. Regardless, the path to total victory had to be challenging.



Figure 12. The missing bottle of Dilantin.

Even after the game was over, players pestered me to reveal the jar's location, but I kept my lips sealed in case I used the symbolically apt hiding spot again. The story is ultimately about Chief Bromden's redemption and escape to freedom. He is incarcerated in the asylum and symbolically associated with dogs so, fittingly, I hid the jar under a blanket in an unused dog cage in one of the classrooms. A number of players had a creative writing class in that room, totally unaware that the much sought-after medicine bottle was only a few feet away.

SOCIAL MEDIA AND PROPAGANDA

The Big Nurse's ubiquitous reach included a Twitter account and a Facebook page, both branded with her logo. My students usually have Facebook open on their phones and browsers, and most of them abided by The Big Nurse's request on the admissions video to follow her on Twitter, so the flow of communication broke through spatial and temporal boundaries, making the game much more immersive and an around-the-clock activity.

The Facebook page served many purposes, becoming a site for propaganda, missions, clues, updated results, and announcements.

Propaganda

The Big Nurse regularly posted propaganda pictures of herself in a variety of settings, reinforcing her power and ubiquity. The images were created using online image generators that blend a user-provided picture with a preexisting image (see Figures 13 and 14). Once the player-hackers entered the fray, The Big Nurse also posted defamatory propaganda and warnings about her adversaries.



Figure 13. An example of Big Nurse propaganda.



Figure 14. Another example of Big Nurse propaganda.

Challenges

At any time of day or night, The Big Nurse kept players on their toes by posting challenges on her Facebook page. These could be questions about the novel, timed tasks, or publicly posted mini-missions. The examples below were lifted directly from the Facebook page:

- “An envelope will be awarded to the first patient to provide a thorough explanation of why the song McMurphy sings on the second day is ironic.”
- This one relates to the Lawrence Welk song that was played ad nauseum in class and was posted on the evening it was first played: “The ward plays such lovely music, but what is it? 3 points if you are the first to post the name of the musician. 5 points if you complete the above and post how it relates to the novel AND include a corresponding quote. 10 points if you complete all of the above and can tell me the name of the song.”
- “The first patient to post five complete segments of dialogue that I (The Big Nurse) have spoken in the novel with corresponding page numbers will receive 5 points. Each dialogue segment must be a new post and if multiple patients are competing, you may not post the same dialogue as another patient.”
- “Post a line from the novel and a corresponding picture of your choice.”
- Players were sent a secret mission to find a painting depicting mental illness, provide the name of the artist, the year it was painted, and how it relates to and/or depicts mental illness. They had to post the results on the page.

The great benefit of posting quotes, images, paintings, and any other material connected to the novel on the Facebook wall was that all other players could see the posts. This reinforced knowledge of the novel and also exposed them to art and ideas that encouraged awareness around the theme of mental illness.

Clues

Occasionally, The Big Nurse posted diverse clues on her Facebook page, which might include hints for treasure hunts and password-protected documents (see Figure 15).



Figure 15. A clue from The Big Nurse's Facebook page.

Results

Results from public competitions were also posted, including leaderboards for inter-ward challenges, rankings for the basketball tournament, and final scores for the endgame showdown.

Announcements

Announcements were regularly posted on the page, which included gameplay updates, changes or improvements to the rules (which were also posted on The Bulletin Board), alerts that certain missions were closed (see Figure 16), or that the game was about to end, and so on. The Big Nurse also reminded players not to discuss the game outside of the ward. One frequently posted message was “Many have been caught. A number have been sent warnings. Remember: Loose Lips Sink Ships.”



Figure 16. An announcement from The Big Nurse's Facebook page.

TEXTING

Before the start of the game, players were asked to volunteer their personal mobile numbers. These were compiled in a free online service called Remind 101 that sends mass texts for the purposes of reminding students of homework or informing parents of class activities. The Big Nurse used this service to update players on urgent news items and to announce that their scores and finances had been updated, which occurred every few days (see Figure 17). Again, this was part of the strategy to create a presence for The Big Nurse through every available channel of communication.

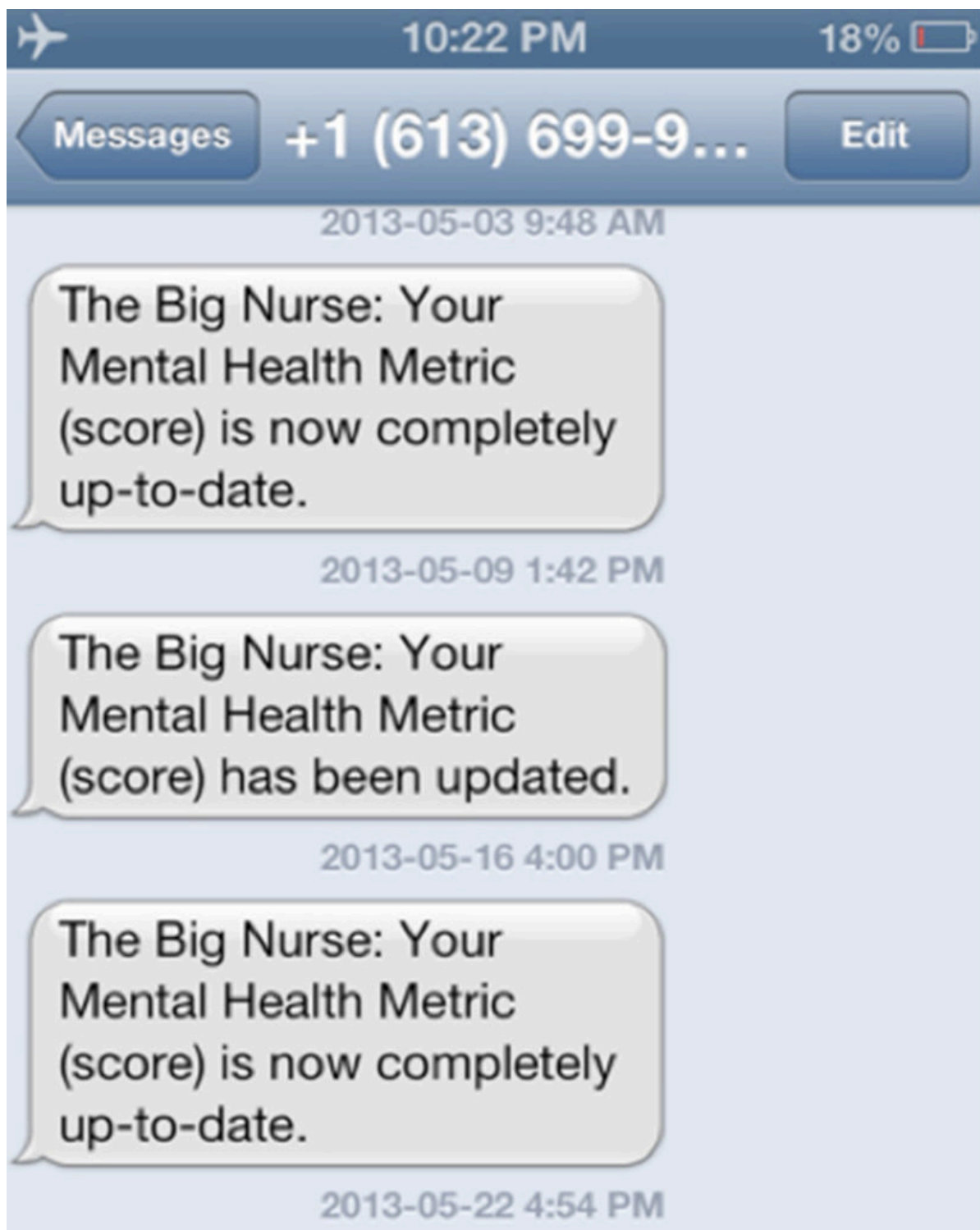


Figure 17. Text messages from *The Big Nurse*.

HACKING THE HACK: MCMURPHY RISES

It wasn't long into the game before players banded together to form secret groups to subvert *The Big Nurse*. This, in my mind, was one of the most remarkable aspects of the entire game. Re-creating the totalitarian atmosphere of the ward in *One Flew Over the Cuckoo's Nest* spurred players to genuinely behave like McMurphy and rebel against the regime in a natural and unscripted way. In the two

iterations of the game, four separate hacker groups rose to challenge The Big Nurse's authority. The membership of these groups was highly secretive, even from the other players. In most cases, the disruption of the game was largely harmless and kept consistent with the edgy and satirical atmosphere of the game. A brief description of each group follows:

The Committee

This was the first and greatest of the hacker groups. Members sent phony missions from email accounts that seemed to originate from The Big Nurse, left strange notes in players' lockers, stole The Big Nurse's Authorized Edition and replaced it with another identical edition, but without my notes and marginalia. They also posted anti-Big Nurse propaganda posters, and employed double agents who offered to help The Big Nurse uncover the group members identities but really just threw her off the trail. Their style of play was creative and humorous, and many players wanted to join them but did not know who they were or how to contact them. The nine core members only revealed themselves after the game was over.



Figure 18. The Committee logo.

Little John and Robin Hood

This squad consisted of two players who counterfeited the in-game currency (the counterfeits were obvious and did not really pass as legitimate cash), put up mysterious posters around the school of

an apple with an arrow through it (their logo), and left playfully menacing notes for The Big Nurse. I remember leaving a class and finding a pile of game money at the threshold of the doorway with their logo at the top of the pile. After the game was over they explained that they wanted only to get The Committee's attention so that they would be asked to join. The plan worked, as they became members 8 and 9 of The Committee.

The Ward Angel

The Ward Angel was a benevolent individual who appealed to The Big Nurse to take a kinder and more forgiving tack. He posted images of a celestial angel on the Facebook page, sent The Big Nurse emails asking her to change her ways, and convinced the kitchen staff to let him plant his calling card in the school vending machine. Sad to say, in what I think was one of the most offside actions in either installment of the game, a member of another subversive group hacked into his Ward Angel's email account and disabled it. The victim of the hack was understandably upset and ceased his activities altogether. Interestingly, I discovered the account hacker to be an excellent student who had never had a behavioral problem, but he had clearly crossed a line.

This brings up an important consideration for this type of game: Its palpable power dynamics and freedom to play can lead to malicious or injurious action. The Ward Angel incident is one of the few that occurred while I ran the game, but every school culture and every class is different and will produce different reactions.

The Outside

The six members of my AP English class were the only group of students in Grade 12 who could not participate in the game because of a scheduling conflict. This didn't stop them. *One Flew Over the Cuckoo's Nest* wasn't even on their reading list, but they familiarized themselves with the novel and every member of the class assumed the persona of a character from the story. To that end, each one created a Facebook page for his persona and stayed in character while communicating with The Big Nurse and the other players.

Their activities, or at least the ones I was aware of, included recording students' having unauthorized discussion about the game and then selling back the recording to said players for C-sticks on a secret black market auction page they'd set up on Facebook. They tried to solve the Dilantin hunt before the legitimate players did but did not succeed. They also sent out disruptive propaganda and engaged The Big Nurse on her Facebook page.

VICTORY AND THE TRIALS OF THE BULL GOOSE LOONY

Like a video game, *The Ward Game* offers many paths to victory. Individual players are discharged when they reach 100 points, or they walk away with as many points as they manage to earn by midnight on the 30th day of play. If anybody had found the jar of Dilantin, he would have also enjoyed an instant victory. Because there was also a sense that the wards were competing against each other, I also organized a grand finale challenge between the wards that took place on the last day of play.

Members of each ward chose a Ward Champion to represent them in three final trials. The first task was The Gauntlet of Knowledge, in which Champions competed to answer 100 questions about

the novel. The second trial was the Monopoly of Madness, in which they competed in a modified Monopoly game, a popular pastime of the patients in the novel. Each Ward Champion's starting Monopoly money was determined by the total C-sticks earned by his ward during the course of the game, which contributed to the idea that the Champion was the embodiment of the collective ward effort.

The final trial was The Presentation of Artifacts in which each Champion had to present as many artifacts as possible from the Champions Checklist, a list of 35 artifacts that had been created by various players during the game. It was impressive to see the long cafeteria tables packed with player-produced brochures, comics, posters, scripts, models, schematics, and maps (see Figures 19, 20, and 21). These were the tangible products of the game. Besides being physically presented on the last day, items also had to appear on a website. A player from each ward accepted a mission to create the website housing the artifacts. The real challenge in completing the checklist was that all wards did not produce all items, so an inter-ward negotiation process was inevitable. The Day Room auction house was alive with offers and trade opportunities, but some players also resorted to wily means to acquire artifacts.



Figure 19. Player Artifact example 1: A propaganda poster.



Figure 20. Player Artifact example 2: An electroshock therapy machine.

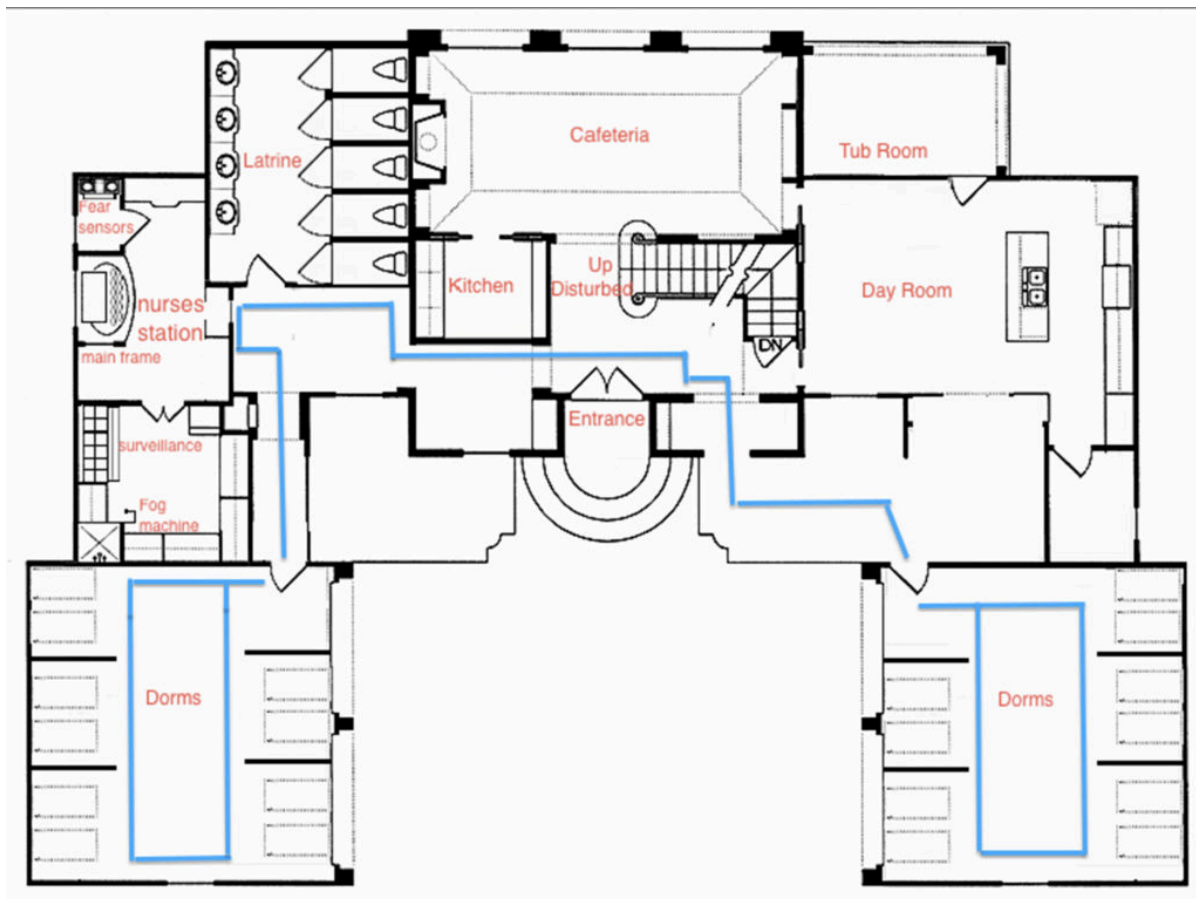


Figure 21. Player Artifact example 3: A map of the ward.

The Ward Champion who emerged from the three trials with the most points would be crowned Bull Goose Loony Grandmaster Ward Champion and his ward would be declared the winner. All players from the winning and runner-up wards would receive additional points to their final scores, which gave them incentive to prepare their champion.

The finale was engaging and exciting but not narratively accurate. In the novel, the patients have a big party, after which McMurphy and a few others plan to escape. The escape fails and McMurphy, deemed incurable, is subjected to a lobotomy and reduced to a near vegetative state. Chief Bromden escapes through a window and runs out into the world. I think that, to some degree, this ending naturally occurred outside the game. My students (Bromden) have their prom (party) and escape the asylum (graduation), but I would ideally like to incorporate that part of the story more faithfully into the game.

THE WARD GAME AS A PERVERSIVE GAME

So what kind of game is *The Ward Game*? How can it be classified? I didn't design it with a specific game genre in mind and was really guided only by the concept of combining video game mechanics with real-life play. The real-life part saved me the trouble of writing scripts and creating immersive graphics and audio. After the first run, I spoke to a few people and did some research and discovered that *The Ward Game* fits into a genre known as *perversive games*. This broad term covers many subgenres such as alternate reality games, mixed and augmented reality games, mobile games, and locative

games, to name a few. Because I didn't intentionally subscribe to a specific genre, *The Ward Game* emerged as an exotic hybrid that combines elements of all of these but doesn't cleanly fit in any one category; therefore, the more general term *pervasive game* is probably the best way to describe it.

I suspect that as we journey deeper into the 21st century, pervasive games will become more commonplace both in and outside of schools. Wearable technology, the Internet of things, and augmented reality interfaces are becoming commonplace, which will allow for an easier blend of the digital and the real. Video games are now a massive cultural force, which has led academics such as Dr. Henry Jenkins to proclaim that they will become the defining art form of the 21st century. Video games have a great deal of potential both as art and as instructional tools, but they are generally sedentary activities. Many consoles, such as Wii, Xbox, and Sony, now offer motion-sensing devices that allow for full-bodied physical participation, but these are still restricted to a relatively limited physical space. Wired mobile and wearable technology such as the now-defunct Google Glass layer digital information on the real world, allowing video game-like experiences to be carried out in the world at large.

It's not difficult to see how a brave new world where the real and the digital coexist seamlessly holds great potential for education. Learning can become an embodied, immersive, anytime-and-anywhere experience that is no longer constrained by classroom walls and clocks. This world holds the potential to more accurately measure student performance based on steady data streams, to provide freer and more individuated instruction, and to produce meaningful interactions with the real world, to say nothing of engagement. All technology, though, is a double-edged sword and there are clearly downsides to this vision. The generation and analysis of substantial personal data can lead to privacy concerns, and students freely wandering in the real world will raise safety issues, to name two biggies. But I'm an idealist, and I believe that our rapidly transforming social context might help us successfully negotiate these issues and deeply transform our outdated and broken system of education.

The Ward Game was inspired by video game culture, but rather than being driven by technology, it yearns for more technology to reach its full potential. All the parts are there, but thus far it has relied on crude improvisations to compensate for the lack of dedicated software, wearable technology, and other techno-goodies that would make the game so much richer, more immersive, and easier to run. Despite these dreams of high-tech, real-world gaming, I think the most important lesson is that anybody anywhere can create a game such as this no matter what the available technology. The only resources necessary are creativity and the willingness to take a few risks and hack the system.

Creating an educational pervasive game is much more demanding, time consuming, and stressful than planning a traditional lesson, but the effort pays off in dividends. I found that the second run was much smoother and easier to deploy, as I was able to reuse much of the material as well as add some time-saving features based on lessons learned my first time around. There is also a great deal of flexibility in the design: Teachers can make it as simple or as complex as they like, and they can adapt the game to work with whatever technology is available to them.

MACGYVER AND THE TEACHER-HACKER: MODDING SPACES AND REPURPOSING TOOLS

The players who hacked *The Ward Game* in defiance of The Big Nurse's tyranny incarnated one of the novel's most important themes: resourceful and playful subversion as an agent of change. I now realize that, like these in-game rebels, I was also channeling McMurphy by playfully pushing boundaries and reprogramming the structures and routines of my school and classes. I never consciously created the game as a hack but, by preserving the novel's key conflicts, I inadvertently conjured the McMurphy/rebel/hacker ethos. *One Flew Over the Cuckoo's Nest* celebrates individuality, subversion, resourcefulness, collaboration, and creativity as the means to combat conformity and control. It conveys the message that educators who are frustrated with the system or want more for their students can effect change through creative and benevolent subversion.

Those of you who survived the '80s might remember a television show called *MacGyver*. Every week, secret agent and government operative Angus MacGyver found himself in some kind of embroilment, but instead of relying on his gun, he resorted to a Swiss army knife and duct tape. MacGyver had a genius for improvisation and drew from his vast knowledge of science to repurpose anything from hairpins to lasers to get him out of a bind. He disarmed missiles with paper clips, built land mines from pinecones, and fashioned a lie detector with a blood-pressure cuff and an alarm clock. MacGyver saw the world through a lens that allowed any object to be transformed to function differently from its intended purpose. Where mere mortals such as you and I see an umbrella or a fishing pole, he sees a grappling hook and a slingshot. The show's popularity led to his name's becoming a verb: You might MacGyver bull clips as cable organizers, or MacGyver egg whites into glue. To a generation, these clever solutions were once known as *MacGyverisms*, but today they are more commonly referred to as *hacks*.

Hackers occupy a prominent role in digital culture. Some scholars argue that coding is the new literacy, and much as with the power wielded by the minority of the population who could read 500 years ago, those who can code will be favorably positioned to succeed in a world that becomes more digital by the minute. Hackers are the shadowy outlaws and activists whose mastery of the digital world has vested them with unprecedented individual power. A single hacker can rattle the stock market, steal millions of dollars from corporations, expose the most intimate details of a person's private life, and, in the case of an Edward Snowden or a Julian Assange, send powerful nations scrambling into damage-control mode when highly classified information is posted for public consumption. Like McMurphy in *One Flew Over the Cuckoo's Nest*, hackers are creative, resourceful rebels who rewire the system to subvert traditional structures of power and authority. Like MacGyver, they can repurpose any part of the digital world to suit their needs and purposes.

Today, the word *hack* can apply to any number of situations. A player who exploits a loophole in a game is said to have hacked the game. A popular website called Lifehacks provides endless tips to repurpose household items or provide solutions for everyday problems such as folding fitted sheets or keeping track of who borrows your books and movies (take a picture of the borrower holding the item). The word has even crept into educational circles, as in the case of the University of Washington's Hackademia project, which seeks to bypass expertise and accreditation and give nontechnical students technical skills to undertake open-ended challenges. Even the terms *disruption*

or *disruptive technology* that have recently entered edujargon imply an agitation of traditional methods and systems, which plays directly into the hacker ethos.

Marshall McLuhan, who coined the term *global village*, believed that electronic communication, computers, and automation would return society to what he referred to as a tribal mode of behavior and interaction. He suggested that the specialization of the postindustrial workforce causes the fragmentation we experience in the modern world, and that modern technology would help reclaim the holistic or “well-rounded” life of nomadic and tribal societies. Increasingly, we see that McLuhan may have been on to something. The word *hack* also implies amateurism, or somebody who lacks formal training, specialized knowledge, or expertise in the activity he or she carries out. Never has it been more possible to be a hack, as the wide-open user-friendly affordances of the Internet have edified the amateur and amateurism. Bloggers are essentially hack journalists, YouTube facilitates hack broadcasting, and Twitter, with its emphasis on “follower,” points to a form of hack celebrity. Even the highly unadvisable but common practice of “Googling” health symptoms encroaches into the territory of the medical specialist. But how does this affect teachers and teaching, and what does it have to do with *The Ward Game*?

Teachers can become hackers in every sense of the word: resourceful MacGyvers who repurpose their tools and spaces, McLuhan-inspired amateurs who subvert narrow specialization and don numerous hats with the assistance of digital technology, and McMurphy-like rebel agents who will ultimately recode and modify the system to implement large-scale change. Teachers already wear many hats, but this can be intensified as they expand their identities and assume holistic, hyphenated roles such as the teacher-artist, teacher-designer, teacher-rebel, teacher-actor, teacher-writer, and, most important, teacher-hacker. In the best cases, they will become all of these and more at once. These roles help express and fulfill their unique identities, rather than simply grinding as gears in the mass-production machine. If McLuhan is to be believed, he asserts that tribal people did not feel the laborious and encumbering sense of “work” as we do in the specialized life of civilization. The teacher-hacker will doubtlessly be busy, but this free, open, expressive, and whole mode of production might feel more like hard play than its opposite.

In many ways, *The Ward Game* fulfills McLuhan’s vision as it embodies the hacker ethos. As the designer and implementer of the game, I have no overly specialized knowledge. I am not a professional game designer, film producer, actor, or software programmer, but, despite my amateurism, I managed to combine all of these and creatively repurpose my tools and environment to deliver the game.

CROSSING THE THRESHOLD

The Ward Game continues to be a rough draft and a work in progress, but designing and running it changed my classes, showed me a different side to my students—in many cases bringing out the best in them—and opened a window to what education could be. It also had a transformative effect on me. It opened up so many creative opportunities and tested me in ways I had never experienced before. It helped redefine my role as a teacher and as a person. The game was a site for personal and collective renovation and convinced me that education must make a space for these types of experiences.

The Ward Game can be conceived of as an experiment to sound out possibilities. It is a game, but

it is also a dynamic art-installation piece that explores the shape and potential of education in the modern world. It is naturally multidisciplinary, demands a variety of tools and literacies, explores privacy and surveillance, freedom and control, hacking and making, disruptive technologies, intrinsic and extrinsic motivation, and the changing roles of learners, all in a playful format. It can thus be seen as a microcosm of the current state and struggles of education and the society that contextualizes it. It is what I discovered when, like Bromden, I learned from McMurphy to swallow my fears and insecurities and threw the control panel at The Big Nurse's barred window to escape my confinement. Once I'd crossed that threshold, I never looked back.