PART TWO

Reinventing Reality

All life is an experiment. The more experiments you make, the better.

—RALPH WALDO EMERSON

CHAPTER SEVEN

The Benefits of Alternate Realities

Whenever I walk through the front door of my apartment, I enter an alternate reality. It looks and works just like regular reality, with one major exception: when I want to clean the bathroom, I have to be *really* sneaky about it.

If my husband, Kiyash, thinks I'm going to scrub the tub on Saturday morning, he'll wake up early, tiptoe out of the bedroom and silently beat me to it. But I've lived in this alternate reality long enough to have developed a highly effective counterstrategy: I clean the bathroom at odd hours in the middle of the week, when he's least expecting it. The more random the hour, the more likely I am to complete the chore before he does. And if this strategy ever starts to fail? Well, let's just say that I am not above hiding the toilet brush.

Why exactly are we competing with each other to do the dirty work? We're playing a free online game called Chore Wars. And it just so happens that ridding our real-world kingdom of toilet stains is worth more experience points, or XP, than any other chore in the Land of the 41st-Floor Ninjas, which is what we've dubbed our apartment in the game. (We live on the forty-first floor, and my husband has a thing for *ninjutsu*.)

Chore Wars

Chore Wars is an alternate reality game (ARG), a game you play in your real life (and not a virtual environment) in order to enjoy it more. Chore Wars is essentially a simplified version of *World of Warcraft*, with one notable exception: all of the online quests correspond with real-world cleaning tasks, and instead of playing with strangers or faraway friends online, you play the game with your roommates, family, or officemates. Kevan Davis, a British experimental game developer who created Chore Wars in 2007, describes it as a "chore management system."[1] It's meant to help you track how much housework people are doing—and to inspire everyone to do more housework, more cheerfully, than they would otherwise.

To play Chore Wars, you first have to recruit a "party of adventurers" from your real-life household or office. That means getting your roommates, family members, or coworkers to sign up online, where together you'll name your kingdom and create avatars to represent everyone in the game.

Anyone who creates an avatar is eligible to undertake any of the custom "adventures" that you create in the game's database—in my household, these include emptying the dishwasher and brewing the first pot of coffee. And because it's a role-playing game, you're encouraged to write up the chores with a fantastical spin. In the Land of the 41st-Floor Ninjas, for example, brushing out our Shetland sheepdog is "Saving the dog-damsel in distress from clumps and shedding," and doing the laundry is "Conjuring clean clothes."

Whenever you complete one of these chores, you log in to the game to report your success. Every chore grants you a customized amount of experience points, virtual gold, treasure, avatar power-ups, or points that increase your virtual skills and abilities: plus ten dexterity points for dusting without knocking anything off the shelves, for example, or plus five stamina points for taking out all three kinds of recycling. And because you get to craft the adventures from scratch yourself, you can customize the in-game rewards to make the least popular chores more attractive—hence, the battle in my apartment to clean the bathroom first. It's worth a whopping one hundred XP.

The more chores you finish, the more experience points and virtual gold you earn, and the faster you level up your online avatar's powers. But Chore Wars isn't just about tracking your avatar development; it's also about earning real rewards. The game's instructions encourage households to invent creative ways to redeem the virtual gold in real life. You could exchange the gold for allowances if you're playing with your kids, or for rounds of drinks for roommates, or coffee runs for workmates, for example. My husband and I share a single car, so we use our gold pieces to bid on what music to play in the car whenever we're driving somewhere together.

But even more satisfying than all of my avatar powers, accumulated gold, and music privileges is the fact that after nine months of playing Chore Wars together, my husband's avatar has earned more overall experience points than I have. And avatar stats don't lie: for nearly a year now, Kiyash has definitely put in more effort cleaning the apartment than I have.

Clearly, this is a game that you win even if you lose. Kiyash has the satisfaction of being the best ninja on the forty-first floor, and I have the pleasure of doing fewer chores than my husband—at least until my competitive spirit kicks back in. Not to mention, it's more enjoyable to be partners in crime when it comes to housework, instead of nagging each other about chores. And, of course, as an added bonus, our place is cleaner than it ever has been before. Chore Wars has transformed something we both normally hate doing into something that feels creative and fun. The game has changed our reality of having to do housework, and for the better.

We're not alone. Chore Wars is one of the best reviewed and most beloved, if little known, secrets on the Internet.

A mom in Texas describes a typical Chore Wars experience: "We have three children, ages nine, eight, and seven. I sat down with the kids, showed them their characters and the adventures, and they literally jumped up and ran off to complete their chosen tasks. I've never seen my eight-year-old son make his bed! And I almost fainted when my husband cleaned out the toaster oven."

The experience apparently works as well for twentysomethings as it does for kids. As another player reports: "I live in a house in London with one other girl and six guys. A lot of the time I'm the only one tidying up, which was

driving me slowly insane. I set up an account for us last night, and set some 'adventures,' and when I got up this morning *everyone in the house was cleaning*. I honestly could not believe what I was seeing. All we had to do is make it a competition! Now the guys are obsessed with beating each other!"[2]

How, exactly, does Chore Wars do it?

We typically think of chores as things we have to do. Either someone is nagging us to do them or we do them out of absolute necessity. That's why they're called chores: by definition, unpleasant tasks. The brilliant masterstroke of Chore Wars is that it convinces us that we *want* to do these tasks.

More important, however, is the introduction of *meaningful choice* into the housework equation. When you set up your party, your first task is to create a large pool of adventures to choose from. No player is assigned a particular adventure. Instead, everyone gets to pick their own. There are no *necessary* chores. You are volunteering for every adventure you take. And this sense of voluntary participation in housework is strengthened by the fact that you're encouraged to apply strategy as you choose your own housework adventures. Should you go for lots of chores that are fast and easy to complete, and try to rack up as many XP as possible that way? Or should you go for the harder, bigger chores, blocking other players from getting all that gold?

Of course, there are no good unnecessary obstacles without arbitrary restrictions. And for advanced Chore Wars players, that's where the real fun comes in. You can make it harder to earn XP and gold by adding new rules to any adventure. For example, you can set target time limits: double XP if you can put away your laundry in under five minutes. Or you can add a stealth requirement: you must empty the trash without anyone seeing you. Or you can simply tack on absurd restrictions: this chore must be done while singing, loudly, for example, or while walking backward.

It sounds ridiculous—why would making a chore harder make it more fun? But like any good game, the more interesting the restrictions, the more we enjoy playing. The Chore Wars management system makes it easy for players to dream up and try out new ways of doing the most ordinary things. Chores are, again by definition, routine—but they don't have to be. Doing them in a game format makes it possible to experience fiero doing something as mun-

dane as cleaning up a mess, simply by making it more challenging, or by requiring us to be more creative about how we do it.

In real life, if you do your chores, there are visible results—a sparkling kitchen, or an organized garage. That's one kind of feedback, and it can certainly be satisfying. But Chore Wars smartly augments this small, everyday satisfaction with a more intense kind of feedback: avatar improvements. As online role-playing gamers everywhere know, leveling up is one of the most satisfying kinds of feedback ever designed. Watching your avatar profile get more powerful and skillful with each chore makes the work feel personally satisfying in a way that a cleaner room just doesn't. You are not just doing all this work for someone else. You are developing your own strengths as you play.

Best of all, you are getting better and better all the time. Even as the laundry gets dirty again or the dust starts to sneak back in, your avatar is still getting stronger, smarter, swifter. In this way, Chore Wars brilliantly reverses the most demoralizing aspects of regular housework. The results of a chore well done may start to fade almost immediately, but no one can take away the XP you have earned.

Individual success is always more rewarding when it happens in a multiplayer context, and this is part of Chore Wars' successful design as well. The game connects all of my individual activities to a larger social experience: I'm never just doing "my" chores; I'm playing with and competing against others. I can see how I measure up to others and compare avatar strengths to learn more about what makes me unique. Meanwhile, as I'm working, I'm thinking about the positive social feedback I'll get in the comments on my adventure, whether it's friendly taunts from a rival or OMGs of amazement for getting such a herculean task done.

Chore Wars isn't the kind of game you'd want to play forever; like all good games, their destiny is to become boring eventually, the better you get at them. But even if household interest in the game dies down after a few weeks or months, a major feat has been accomplished: players have had a rather memorable, positive experience of doing chores together. And that should change the way they think about and approach chores for some time.

So that's how Chore Wars achieves the seemingly impossible. It turns

routine housework into a collective adventure, by adding unnecessary obstacles and implementing more motivating feedback systems. And it's the perfect example of our next reality fix:

FIX #7: WHOLEHEARTED PARTICIPATION

Compared with games, reality is hard to get into. Games motivate us to participate more fully in whatever we're doing.

To participate wholeheartedly in something means to be *self-motivated* and *self-directed, intensely interested* and *genuinely enthusiastic.*

If we're forced to do something, or if we do it halfheartedly, we're not really participating.

If we don't care how it all turns out, we're not really participating.

If we're passively waiting it out, we're not really participating.

And the less we fully participate in our everyday lives, the fewer opportunities we have to be happy. It's that plain and simple. The emotional and social rewards we really crave require active, enthusiastic, self-motivated participation. And helping players participate more fully in the moment, instead of trying to escape it or just get through it, is *the* signature hallmark of alternate reality projects—the focus of this and the following three chapters of this book.

If "alternate reality" is an unfamiliar term for you, then you're not alone. Alternate reality development is still a highly experimental field. The term "alternate reality game" has been in use as a technical industry term since 2002, but there are still plenty of gamers and game designers who know little about it, let alone people outside of the gaming world.

As game developers are increasingly starting to push the limits of how

much a game can affect our real lives, the concept of alternate reality is becoming more and more central to discussions about the future of games. It's helping to promote the idea that game technologies can be used to organize real-world activity. Most importantly, it's provoking innovative ideas about how to blend together what we love most about games and what we want most from our real lives.

On a recent Saturday morning, I found myself on Twitter, trading possible definitions for "alternate reality game" back and forth with about fifty other alternate reality gamers and developers. We were trying to work out a short definition that would really capture the spirit of ARG design, if not necessarily describe all the possible technological and formal components.

Collectively, we cobbled together a description of ARGs that seems to capture their spirit more effectively than any other definition I've seen: alternate realities are the *antiescapist* game.

ARGs are designed to make it easier to generate the four intrinsic rewards we crave—more satisfying work, better hope of success, stronger social connectivity, and more meaning—whenever we can't or don't want to be in a virtual environment. They're not meant to diminish the real rewards we get from playing traditional computer and video games. But they do make a strong argument that these rewards should be easier to get in real life.

In other words, ARGs are games you play to get more out of your real life, as opposed to games you play to escape it. ARG developers want us to participate as fully in our everyday lives as we do in our game lives.

Apart from this common mission, great alternate reality games can differ tremendously from one to another, in terms of style, scale, scope, and budget. Some ARGs, like Chore Wars, have relatively humble ambitions. They pick one very specific area of our personal lives and try to improve it. Others have quite audacious goals, involving entire communities or society at large: for example, to reinvent public education as we know it, to help players discover their true purpose in life, or even to improve our experience of death and dying.

Of course, not all ARGs are designed explicitly to improve our lives. Historically, in fact, most ARGs, like most computer and videogames, have been

designed simply to be fun and emotionally satisfying. But my research shows that because ARGs are played in real-world contexts, instead of in virtual spaces, they almost always have at least the *side effect* of improving our real lives.[3] And so while others might distinguish between "serious" ARGs and "entertainment" ARGs, I prefer to look at *all* ARGs as having the potential to improve our quality of life. Indeed, a significantly higher percent of newer ARGs (created since 2007, compared with early ARGs created 2001–2006) are designed with explicit quality of life or world-changing goals. You'll read about these "positive impact" ARGs in the chapters ahead.

Some ARGs are invented and playtested on a shoestring budget, whether by artists, researchers, indie game developers, or nonprofit organizations. They're often developed for relatively small groups: a few hundred or a few thousand players. Others are backed by multimillion-dollar investments, receive funding from major foundations, or are sponsored by Fortune 500 companies. These bigger games can attract tens of thousands, hundreds of thousands, or even, in a few extremely successful cases, millions of players.[4]

Still, for the most part, alternate reality games today are small-scale probes of the future. They're a showcase for new possibilities. No single ARG is changing the world yet. But taken together, they're proving one at a time the myriad and important ways we could make our real lives better by playing more games.

So let's look at a few groundbreaking alternate reality projects. As we do, you'll notice that there are two key qualities that every good ARG shares.

First and foremost, like any good game, an ARG must always be *optional*. You can bet that if you *required* someone to play Chore Wars, it would lose a large part of its appeal and effectiveness. An alternate reality game has to remain a true "alternate" for it to work.

It's not enough, however, just to make something optional. Once the activity is under way, a good ARG, like any good game, also needs compelling goals, interesting obstacles, and well-designed feedback systems. These three elements encourage fuller participation by tapping into our natural desires to master challenges, to be creative, to push the limits of our abilities. And that's where **optimal experience design** comes in. Without a doubt, some alternate

realities are more fun and engaging than others, just as some traditional games are better than others. The best ARGs are the ones that, like the best traditional computer and video games, help us create more satisfying work for ourselves, cultivate better hopes of success, strengthen our social bonds and activate our social networks, and give us the chance to contribute to something bigger than ourselves.

One ARG that achieves all of these goals is Quest to Learn—a bold new design for public schools that shows us how education can be transformed to engage students as wholeheartedly as their favorite video games.

Quest to Learn—And Why Our Schools Should Work More Like a Game

Today's "born-digital" kids—the first generation to grow up with the Internet, born 1990 and later—crave gameplay in a way that older generations don't.

Most of them have had easy access to sophisticated games and virtual worlds their entire lives, and so they take high-intensity engagement and active participation for granted. They know what extreme, positive activation feels like, and when they're not feeling it, they're bored and frustrated.[5] They have good reason to feel that way: it's a lot harder to function in low-motivation, low-feedback, and low-challenge environments when you've grown up playing sophisticated games. And that's why today's born-digital kids are suffering more in traditional classrooms than any previous generation. School today for the most part is just one long series of *necessary* obstacles that produce negative stress. The work is mandatory and standardized, and failure goes on your permanent record. As a result, there's a growing disconnect between virtual environments and the classroom.

Marc Prensky, author of *Teaching Digital Natives*, describes the current educational crisis:

> "Engage me or enrage me," today's students demand. And believe me, they're enraged. All the students we teach have something in

> their lives that's really engaging—something that they do and that they are good at, something that has an engaging, creative component to it. . . . Video games are the epitome of this kind of total creative engagement. By comparison, school is so boring that kids, used to this other life, can't stand it. And unlike previous generations of students, who grew up without games, they know what real engagement feels like. They know exactly what they're missing.[6]

To try to close this gap, educators have spent the past decade bringing more and more games into our schools. Educational games are a huge and growing industry, and they're being developed to help teach pretty much any topic or skill you could imagine, from history to math to science to foreign languages. When these games work—when they marry good game design with strong educational content—they provide a welcome relief to students who otherwise feel underengaged in their daily school lives. But even then, these educational games are at best a temporary solution. The engagement gap is getting too wide for a handful of educational games to make a significant and lasting difference over the course of a student's thirteen-year public education.

What *would* make the difference? Increasingly, some education innovators, including Prensky, are calling for a more dramatic kind of game-based reform. Their ideal school doesn't *use* games to teach students. Their ideal school *is* a game, from start to finish: every course, every activity, every assignment, every moment of instruction and assessment would be designed by borrowing key mechanics and participation strategies from the most engaging multiplayer games. And it's not just an idea—the game-reform movement is well under way. And there's already one new public school entirely dedicated to offering an alternate reality to students who want to game their way through to graduation.

Quest to Learn is a public charter school in New York City for students in grades six through twelve. It's the first game-based school in the world—but its founders hope it will serve as a model for schools worldwide.

Quest opened its doors in the fall of 2009 after two years of curriculum design and strategic planning, directed by a joint team of educators and profes-

sional game developers, and made possible by funding from the MacArthur Foundation and the Bill and Melinda Gates Foundation. It's run by principal Aaron B. Schwartz, a graduate of Yale University and a ten-year veteran teacher and administrator in the New York City Department of Education. Meanwhile, the development of the school's curriculum and schedule has been led by Katie Salen, a ten-year veteran of the game industry and a leading researcher of how kids learn by playing games.

In many ways, the college-preparatory curriculum is like any other school's—the students learn math, science, geography, English, history, foreign languages, computers, and arts in different blocks throughout the day. But it's how they learn that's different: students are engaged in gameful activities from the moment they wake up in the morning to the moment they finish up their final homework assignment at night. The schedule of a sixth-grader named Rai can help us better understand a day in the life of a Quest student.

7:15 a.m. Rai is "questing" before she even gets to school. She's working on a secret mission, a math assignment that yesterday she discovered hidden in one of the books in the school library. She exchanges text messages with her friends Joe and Celia as soon as she gets up in order to make plans to meet at school early. Their goal: break the mathematical code before any of the other students discover it.

This isn't a mandatory assignment—it's a secret assignment, an opt-in learning quest. Not only do they not have to complete it, they actually have to *earn the right* to complete it, by discovering its secret location.

Having a secret mission means you're not learning and practicing fractions because you have to do it. You're working toward a self-chosen goal, and an exciting one at that: decoding a secret message before anyone else. Obviously not all schoolwork can be special, secret missions. But when every book could contain a secret code, every room a clue, every handout a puzzle, who wouldn't show up to school more likely to fully participate, in the hopes of being the first to find the secret challenges?

9:00 a.m. In English class, Rai isn't trying to earn a good grade today. Instead, she's trying to level up. She's working her way through a storytelling unit, and she already has five points. That makes her just seven points shy of

a "master" storyteller status. She's hoping to add another point to her total today by completing a creative writing mission. She might not be the first student in her class to become a storytelling master, but she doesn't have to worry about missing her opportunity. As long as she's willing to tackle more quests, she can work her way up to the top level and earn her equivalent of an A grade.

Leveling up is a much more egalitarian model of success than a traditional letter grading system based on the bell curve. Everyone can level up, as long as they keep working hard. Leveling up can replace or complement traditional letter grades that students have just one shot at earning. And if you fail a quest, there's no permanent damage done to your report card. You just have to try more quests to earn enough points to get the score you want. This system of "grading" replaces negative stress with positive stress, helping students focus more on learning and less on performing.

11:45 a.m. Rai logs on to a school computer to update her profile in the "expertise exchange," where all the students advertise their learning superpowers. She's going to declare herself a master at mapmaking. She didn't even realize mapmaking could count as an area of expertise. She does it for fun, outside of school, making maps of her favorite 3D virtual worlds to help other players navigate them better. Her geography teacher, Mr. Smiley, saw one of her maps and told her that eighth-graders were just about to start a group quest to locate "hidden histories" of Africa: they would look for clues about the past in everyday objects like trade beads, tapestries, and pots. They would need a good digital mapmaker to help them plot the stories about the objects according to where they were found, and to design a map that would be fun for other students to explore.

The expertise exchange works just like video game social network profiles that advertise what games you're good at and like to play, as well as the online matchmaking systems that help players find new teammates. These systems are designed to encourage and facilitate collaboration. By identifying your strengths and interests publicly, you increase the chances that you'll be called on to do work that you're good at. In the classroom, this means students are

more likely to find ways to contribute successfully to team projects. And the chance to do something you're good at as part of a larger project helps students build real esteem among their peers—not empty self-esteem based on nothing other than wanting to feel good about yourself, but actual respect and high regard based on contributions you've made.

2:15 p.m. On Fridays, the school always has a guest speaker, or "secret ally." Today, the secret ally is a musician named Jason, who uses computer programs to make music. After giving a live demonstration with his laptop, he announces that he'll be back in a few weeks to help the students as a coach on their upcoming "boss level." For the boss level, students will form teams and compose their own music. Every team will have a different part to play—and rumor has it that several mathematical specialists will be needed to work on the computer code. Rai really wants to qualify for one of those spots, so she plans to spend extra time over the next two weeks working harder on her math assignments.

As the Quest website explains, boss levels are "two-week 'intensive' [units] where students apply knowledge and skills to date to propose solutions to complex problems." "Boss level" is a term taken directly from video games. In a boss level, you face a boss monster (or some equivalent thereof)—a monster so intimidating it requires you to draw on everything you've learned and mastered in the game so far. It's the equivalent of a midterm or final exam. Boss levels are notoriously hard but immensely satisfying to beat. Quest schedules boss levels at various points in the school year, in order to fire students up about putting their lessons into action. Students get to tackle an epic challenge—and there's no shame in failing. It's a boss level, and so, just like any good game, it's meant to whet your appetite to try harder and practice more.

Like collaborative quests, the boss levels are tackled in teams, and each student must qualify to play a particular role—"mathematical specialist," for example. Just as in a big *World of Warcraft* raid, each participant is expected to play to his or her strengths. This is one of Quest's key strategies for giving students better hopes of success. Beyond the basic core curriculum, students spend most of their time getting better at subjects and activities—ones they

have a natural talent for or already know how to do well. This strategy means every student is set up to truly excel at something, and to focus attention on the areas in which he or she is most likely to one day become extraordinary.

6:00 p.m. Rai is at home, interacting with a virtual character named Betty. Rai's goal is to teach Betty how to divide mixed numbers. Betty is what Quest calls a "teachable agent": "an assessment tool where kids teach a digital character how to solve a particular problem." In other words, Betty is a software program designed to know *less* than Rai. And it's Rai's job to "teach" the program, by demonstrating solutions and working patiently with Betty until she gets it.

At Quest, these teachable agents replace quizzes, easing the anxiety associated with having to perform under pressure. With a teachable agent, you're not being tested to see if you've really learned something. Instead, you're mentoring someone because you really have learned something, and this is your chance to show it. There's a powerful element of naches—vicarious pride—involved here: the more a student learns, the more he or she can pass it on. This is a core dynamic of how learning works in good video games, and at Quest it's perfectly translated into a scalable assessment system.

Secret missions, boss levels, expertise exchanges, special agents, points, and levels instead of letter grades—there's no doubt that Quest to Learn is a different kind of learning environment, about as radically different a mission as any charter school has set out in recent memory. It's an unprecedented infusion of gamefulness into the public school system. And the result is a learning environment where students get to share secret knowledge, turn their intellectual strengths into superpowers, tackle epic challenges, and fail without fear.

Quest to Learn started with a sixth-grade class in the fall of 2009, and it plans to add a new sixth-grade class each year as the previous year graduates upward. The first senior class will graduate from Quest to Learn in 2016, and potentially from college by 2020. I'm willing to bet that that graduating class will be full of creative problem solvers, strong collaborators, and innovative thinkers ready to wholeheartedly tackle formidable challenges in the real world.

SuperBetter—Or How to Turn Recovery into a Multiplayer Experience

Either I'm going to kill myself or I'm going to turn this into a game. After the four most miserable weeks of my life, those seemed like the only two options I had left.

It was the summer of 2009, and I was about halfway through writing this book when I got a concussion. It was a stupid, fluke accident. I had been standing up, and I slammed my head straight into a cabinet door I didn't realize was still open. I was dizzy, saw stars, and felt sick to my stomach. When my husband asked me who the president was, I drew a blank.

Some concussions get better in a few hours, or a few days. Others turn into a much longer postconcussion syndrome. That's what happened to me. I got a headache and a case of vertigo that didn't go away. Any time I turned my head, it felt like I was doing somersaults. And I was in a constant mental fog. I kept forgetting things—people's names, or where I'd put things. If I tried to read or write, after a few minutes my vision blurred out completely. I couldn't think clearly enough to keep up my end of interesting conversations. Even just being around other people, or out in public spaces, seemed to make it worse. At the time, I scribbled these notes: "Everything is hard. The iron fist pushes against my thoughts. My whole brain feels vacuum pressurized. If I can't think, who am I?"

After five days of these symptoms and after a round of neurological tests that all proved normal, my doctor told me I would be fine—but it would probably take an entire month before I really felt like myself again. In the meantime, no reading, no writing, no working, and no running, unless I was completely symptom-free. I had to avoid anything that made my head hurt or made the fog worse. (Sadly, I quickly discovered that computer and video games were out of the question; it was way too much mental stimulation.)

This was difficult news to hear. A month seemed like an impossibly long time not to work and to feel this bad. But at least it gave me a target to shoot

for. I set the date on my calendar: August 15, I would be better. I believed it. I *had* to believe it.

That month came and went, and I'd barely improved at all.

That's when I found out that if you don't recover in a month, the next likely window of recovery is three months.

And if you miss *that* target, the next target is a year.

Two more months living with a vacuum-pressurized brain? Possibly an *entire year*? I felt more hopeless than I could have ever imagined. Rationally, I knew things could be worse—I wasn't dying, after all. But I felt like a shadow of my real self, and I wanted so desperately to resume my normal life.

My doctor had told me that it was normal to feel anxious or depressed after a concussion. But she also said that anxiety and depression exacerbate concussion symptoms and make it much harder for the brain to heal itself. The more depressed or anxious you get, the more concussed you feel and the longer recovery takes. Of course, the worse the symptoms are and the longer they last, the more likely you are to be anxious or depressed. In other words, it's a vicious cycle. And the only way to get better faster is to break the cycle.

I knew I was trapped in that cycle. The only thing I could think of that could possibly make me optimistic enough to break it was a game.

It was a strange idea, but I literally had nothing else to do (except watch television and go on very slow walks). I'd never made a health care game before. But it seemed like the perfect opportunity to try out my alternate reality theories in a new context. I might not be able to read or write very much, but hopefully I could still be creative.

I knew right away it needed to be a multiplayer game. I'd been having a lot of trouble explaining to my closest friends and family how truly anxious I was and how depressed I felt, how hard the recovery process was. I also felt awkward, and embarrassed, asking for help. I needed a way to help myself tell my closest friends and family, "I am having the hardest time of my life, and I really need you to help me." But I also didn't want to be a burden. I wanted to *invite* people to help me.

As with any alternate reality project, I needed to research the reality of the

situation before I could reinvent it. So, for a few days, I spent the limited amount of time I was able to focus—about an hour a day at that point—learning about postconcussion syndrome online. From various medical journals and reports, I pieced together what experts agree are the three most important strategies for getting better and coping more effectively—not only from concussions, but any injury or chronic illness.

First: stay optimistic, set goals, and focus on any positive progress you make. Second: get support from friends and family. And third: learn to read your symptoms like a temperature gauge. How you feel tells you when to do more, do less, or take breaks, so you can gradually work your way up to more demanding activity.[7]

Of course, it immediately occurred to me that these three strategies sound exactly like what you do when you're playing a good multiplayer game. You have clear goals; you track your progress; you tackle increasingly difficult challenges, but only when you're ready for them; and you connect with people you like. The only thing missing from these recovery strategies, really, was the meaning—the exciting story, the heroic purpose, the sense of being part of something bigger.

So that's where SuperBetter comes in.

SuperBetter is a superhero-themed game that turns getting better into multiplayer adventure. It's designed to help anyone recovering from an injury or coping with a chronic condition get better sooner—with more fun, and with less pain and misery, along the way.

The game starts with five missions. You're encouraged to do at least one mission a day, so that you've successfully completed them all in less than a week. Of course, you can move through them even faster if you feel up to it. Here are excerpts from the instructions for each mission, along with an explanation of how I designed it and how I played it.

> Mission #1: Create your SuperBetter secret identity. You're the hero of this adventure. And you can be anyone you want, from any story you love. So pick your favorite story—anything from James

> Bond to *Gossip Girl*, *Twilight* to *Harry Potter*, *Batman* to *Buffy the Vampire Slayer*. You're about to borrow their superpowers and play the leading role yourself.

I chose *Buffy the Vampire Slayer* as my story line. That made me Jane the Concussion Slayer, and that made my symptoms the vampires, demons, and other forces of darkness I was destined by fate to battle against. The point of this mission is to start seeing yourself as powerful, not powerless. And it underscores the fact that you *are* heroic for choosing to persevere in the face of your injury or illness.

> Mission #2: Recruit your allies. Every superhero has an inner circle of friends who help save the day. Pick the people you want to count on most, and invite them to play this game with you. Ask each one to play a specific part: Batman needs a Robin and an Alfred, while James Bond needs an M, a Q, and a Moneypenny. If you're Bella, you'll want at least an Edward, a Jacob, and an Alice. Give each ally a specific mission, related to his or her character. Use your imagination—and feel free to ask for anything you need! When you're saving the world, you can't be shy about asking for help. Be sure to ask at least one ally to give you daily or weekly achievements—these are surprise accomplishments they bestow upon you based on your latest superheroic activities.

As Jane the Concussion Slayer, I recruited my twin sister as my "Watcher" (Buffy's mentor in the TV series). Her mission was to call me every single day and ask for a report on my concussion-slaying activities. She should also give me advice and suggest challenges for me to try. Before playing SuperBetter, I hadn't known how to explain to her that I really needed daily contact, and not just to hear from her on the weekends.

I recruited my husband as my "Willow" (Buffy's smarty-pants best friend who's also a computer geek). His mission was to do all of the score- and record-keeping for me, read me interesting articles, and in general help me with

anything I wanted to do on the computer without getting a headache. Finally, I recruited my friends Natalie and Rommel, and their miniature dachshund, Maurice, as my "Xander" (he's the comic-relief character). Their mission was to come over once a week and just generally cheer me up.

Why recruit allies? Social psychologists have long observed that one of the hardest things about a chronic injury or illness is asking our friends and family for support. But reaching out and really asking for what we need makes a huge difference. It prevents social isolation, and it gives people who want to help, but don't know how, something specific and actionable to do.

And why have achievements? Every fiero moment helps increase optimism and a sense of mastery, which has been proven to speed recovery from everything from knee injuries to cancer. But achievements feel more meaningful when someone else gives them to you—that's why it's important to have a friend or family member bestow them upon you. Kiyash gave me my achievements based on the titles of episodes of *Buffy the Vampire Slayer*. (For example, I unlocked the "Out of Mind, Out of Sight" achievement for ignoring my e-mail for an entire day, and "The Harvest" achievement for eating vegetables for dinner instead of cookies and ice cream, which was one of my favorite postconcussion ways to drown my sorrows. At the time, both of those felt like epic struggles.)

> Mission #3: Find the bad guys. To win this battle, you need to know what you're up against. Pay attention all day to anything that makes you feel worse, and put it on your bad-guys list. Some days, you'll be able to battle the bad guys longer—some days not so long. But every time you do battle, you'll want to make a great escape. That means getting away from the bad guy before he knocks you flat. You can always add more bad guys to your list as you discover them—and if you vanquish one forever, you can take it off and claim the permanent victory.

My list of bad guys at the start of the game focused on activities I kept trying to sneak in even though I knew they made me feel worse: reading and re-

sponding to e-mail, running or doing any kind of vigorous exercise, playing *Peggle*, drinking coffee.

The better you can identify triggers of your symptoms, the more pain and suffering you'll avoid. And making a great escape turns a potential moment of failure—*This is harder than it should be*, or *I can't do what I want to do*—into a moment of triumph: *I succeeded in recognizing a trigger and vanquished it before it did too much damage*. One of the highlights in my recovery was when I enlisted the entire crew at the Peet's Coffee down the block to help me modulate the amount of caffeine in my morning iced coffee, which I was really reluctant to give up. It was their idea to start me off with 90 percent decaf with just a splash of caffeine so that I could work my way up to half and half, and eventually full caffeine when my brain was finally ready to be stimulated again.

> Mission #4: Identify your power-ups. Good thing you've got superpowers. Maybe they're not your typical superpowers—but you definitely have fun things you can do for yourself at a moment's notice to feel better. Make a list, and be ready to call on them whenever the bad guys are getting the better of you. In fact, try to collect as many power-ups as you can every day!

For my concussion recovery, I focused on things I could do with my senses that weren't affected by my head injury. Touch was fine, so I could sit and cuddle with my Shetland sheepdog. Hearing was fine, so I could sit by the window and listen to a podcast. And the biggest superpower I discovered had to do with my sense of smell: I really started to enjoy smelling different perfumes. I would go to a perfume counter, spray samples of a dozen perfumes on cards, then take them home and smell them throughout the rest of the evening, to see how they changed and to learn the different notes. It was one of the most engaging activities I could do without hurting my brain at all. And eventually, once my vertigo was improved, I was able to add to my power-up list long walks up San Francisco hills with my husband.

The power-ups are meant to help you feel capable of having a good day,

no matter what. Having specific positive actions to take increases the odds of doing something that will break the cycle of feeling negative stress or depression.

> Mission #5: Create your superhero to-do list. Not every mission is possible, but it doesn't hurt to dream big. Make a list of goals for yourself, ranging from things you're 100 percent positive you can do right now to things you might not have been able to do even in your wildest dreams before you got sick or hurt. Everything on your list should be something that would make you feel awesome and show off your strengths. Every day, try to make progress toward crossing one of these superhero to-dos off your list. Be sure to get your allies' help and advice.

This final idea was inspired by a question I'd found on the website of a New Zealand occupational therapist. "If I can't take your pain away, what else would you like to improve in your life?"[8] It's one of the abiding features of a good game: the outcome is uncertain. You play in order to discover how well you can do—not because you're guaranteed to win. SuperBetter has to acknowledge the possibility of failure to achieve complete recovery. But it can also make it less scary to fail—because there is an abundance of other goals to pursue and other rewarding activities to undertake along the way. That's why it seemed essential to make part of the game a project to discover as many positive activities that it was still possible to do. It increased my real hopes of enjoying life more, no matter what else happened with the recovery or treatment.

One of my easiest superhero to-dos was baking cookies for people who live in my neighborhood. I liked it so much, I did it three times. A more challenging to-do was finding an opportunity to wear my favorite pair of purple leather stiletto boots, which meant getting up the energy to go out and see people. (I crossed this one off my list by going to see a movie with a big group of friends. I was a bit overdressed, but I felt great anyway.) The biggest superhero to-do on my list was, of course, to finish this book.

Once you have completed the five big missions, your challenge is to stay in constant contact with your allies, collect power-ups by battling the bad guys and making great escapes, and tackle items on your superhero to-do list. You might want to "lock in" your gameplay by keeping a game journal, posting daily videos on YouTube, or using Twitter to announce your achievements.

Near the end of every day, hold a secret meeting with one of your allies. Add up your great escapes, your power-ups, and your superhero points.

Talk to your other allies as often as possible, and tell them what you've been doing to get superbetter. Ask them for ideas about new things to add to your to-do list.

Be sure you have at least one ally who is giving you daily achievements. Share these achievements with your friends online, using Twitter or Facebook status updates, to keep them posted on your progress.

So that's how you play SuperBetter. But does it actually improve the reality of getting better?

The first few days I was playing, I was in a better mood than I had been at any time since I hit my head. I felt like I was finally *doing* something to get better, not just lying around and waiting for my brain to hurry up and heal itself.

My symptoms didn't improve instantly—but I was so much more motivated to get something positive out of my day, no matter what. Every day, no matter how bad I felt otherwise, I would score at least one great escape, grab at least one power-up, rack up some points, and unlock an achievement. Doing these things didn't require being cured; it just required making an effort to participate more fully in my own recovery process.

There's not a whole lot you can prove with a scientific sample of one. I can say only that, for me, the fog of misery lifted first, and then, soon after, the fog of symptoms started to lift as well. Within two weeks of playing Jane the Concussion Slayer, my symptoms were improved by roughly 80 percent, according to the log Kiyash helped me keep of my pain and concentration problems on a ten-point scale, and I was up to working as many as four hours a day. Within a month, I felt almost completely recovered.

I can't say for sure if I got better any faster than I would have without playing the game—although I suspect it helped a great deal. What I can say for sure is that I suffered a great deal less during the recovery as a direct result of the game. I was miserable one day, and the next day I wasn't; and I was never that miserable again as long as I was playing the game. When my allies joined the game, I finally felt like they really understood what I was going through, and I never felt quite so lost in the fog again.

After declaring my victory over the concussion in a Twitter post, I received dozens of requests to post all the rules and missions, so that other people could game their own injuries and illnesses—for everything from chronic back pain and social anxiety to lung disorders, migraines, the side effects of quitting smoking, newly diagnosed diabetes, chemotherapy, and even mononucleosis.

I published the rule set on my blog, and I gave it the more general name SuperBetter (after all, most people probably don't dream of being like Buffy the Vampire Slayer).[9] I suggested that people use the hashtag "#SuperBetter" for their own videos, blog posts, and Twitter updates, in case they wanted to find each other online. (A *hashtag* is a way to easily add context to your online content, and to find other people talking about the same topic.) And that was it. I didn't build a Web application, or develop an automated scoring system, or even set up a social network for playing the game. A game doesn't have to be a computer program. It can simply be like chess or hide-and-seek: a set of rules that one player can pass on to another.

An alternate reality game can be as simple as a good idea, a fresh way of looking at a problem. SuperBetter, of course, isn't meant to replace conventional medical advice or treatment. It's meant to augment good advice, and to help patients take a more active role in their own recovery.

When you're sick or in pain, getting better is all you want. But the longer it takes, the harder it gets. And when the tough reality we have to face is that getting better won't be easy, a good game can better prepare us to deal with that reality. In an alternate reality linked to our favorite superhero mythology, we're more likely to stay optimistic, because we'll set more reasonable goals

and keep better track of our progress. We'll feel successful even when we're struggling, because our friends and family will define fiero moments for us every day. We'll build a stronger social support system, because it's easier to ask someone to play a game than it is to ask for help. And we'll hopefully find real meaning and develop real character in our epic efforts to overcome what may be the toughest challenge we've ever had to face. And *that's* how we get superbetter, thanks to a good game.

THE THREE GAMES discussed in this chapter represent three of the main approaches to developing an alternate reality and solving a quality-of-life problem.

> Chore Wars is an example of a **life-management** ARG—a software program or service that helps you manage your real life like a game.
>
> Quest to Learn is an example of an **organizational** ARG. It uses game design as a guiding philosophy for creating new institutions and inventing new organizational practices.
>
> And SuperBetter is a **concept** ARG. It uses social media and networking tools to virally spread new game ideas, missions, and rule sets, which players can repurpose and adapt for their own lives as they see fit.

These three methods aren't the only ways to create an alternate reality. In later chapters in this book, you'll also read about **live event ARGs**, which gather players at physical locations for a game that takes only an hour or a day to play, and **narrative ARGs**, which use multimedia storytelling—video, text, photographs, audio, and even graphic novels—to weave real-world game missions into a compelling fiction that plays out over weeks, months, or even years.

Of course, by the time you read this book, dozens—probably hundreds—of new alternate reality games will no doubt be widely playable. This movement

is just getting started. When we imagine how the ARG movement might unfold, we can—as always—look for guidance from the past.

In the early 1970s, just before the computer and video game revolution, another game revolution took place, with significantly less fanfare but a rather important and lasting legacy. It was called the New Games movement, and its goal was to reinvent sports to be more cooperative, more social, and more inclusive.

The New Games philosophy was simple, composed of two parts. First, no one should ever have to warm the bench because they're not good enough to play. And second, competitive gameplay shouldn't be about winning. It should be about playing harder and longer than the other team, in order to have more fun.

The founders of the movement, a group of San Francisco–based counterculturists, invented dozens of new sports, all sillier and more spectacular than traditional athletic activities. The most well known were the "earth ball" games (played with a ball six feet in diameter, so that it takes multiple people to move the ball together) and parachute games (in which twenty to fifty people stand around the rim of a piece of parachute material and flap and billow it together, working to create various shapes and ripples). They held large New Games festivals in the Bay Area and eventually trained tens of thousands of schools and parks and recreation departments across the country, so that they could include New Games in their physical education and public recreation programs.

Many of today's leading game developers grew up playing New Games at school and local parks—and it's not hard to see the influence of New Games on multiplayer and massively multiplayer game designers today. From the cooperative missions in MMOs to the 256-player combat environments on consoles, video gameplay today often looks a lot like a New Game, set in a virtual world. In fact, New Games theory has come up at every single Game Developers Conference I've attended over the last decade—which is how I know that many game designers have managed to acquire for themselves a copy of the long out-of-print and little-known *New Games Book*, published in 1976.

The New Games Book includes instructions for how to play the new sports and, more importantly, essays explaining the philosophy of the movement. Many of my friends in the industry have acknowledged they've flipped through its pages for game-design inspiration.

I've nearly worn the print off the page of my favorite essay in the book. It's called "Creating the Play Community," by Bernie DeKoven, then the codirector of the New Games Foundation and today a leading play theorist. In the essay, DeKoven calls for a community of players to volunteer to be of service to the movement. He asks: Who will be willing to try these new games and help assess whether they are, in fact, better than the old games? If they are better, the community should teach others how to play. If they're not better, the players should suggest ways to improve them, or start inventing their own new games to test. He explains:

> Because the games are new, we get a sense that we're experimenting. No one guarantees anything. If a game doesn't work, we try to fix it, to see if we can make it work. After all, it's a new game. It's not official yet. In fact, we're the officials, all of us, every one of us who has come to play. We make the judgments. We each take the responsibility for discovering what we can enjoy together.[10]

This is the kind of community that is currently coming together around alternate reality games. As we develop alternate realities, we need to be both open-minded and critical about what actually raises our quality of life, what helps us participate more fully in our real lives, and what simply serves as yet another distraction. There will be many, many different alternate realities proposed in the coming years, and it's not up to just the game developers to shape this movement. The players, more than anyone else, will get to decide if a new alternate reality is indeed a good game.

The "how" of alternate reality game design boils down to the game-design principles that best generate the four rewards we crave most. Traditional computer and video game developers are leading the way, constantly innovating new ways to reap these rewards; ARG developers are already borrowing and

refining these design strategies and development tools as their go-to solutions for how to make the world work more like a game.

But as we playtest different possibilities to decide what makes a good alternate reality, three additional sets of criteria are certain to emerge.

First: *When* and *where* do we need an alternate reality? Which situations and spaces call for it—and when are we better off leaving reality alone?

Second: *Who* should we include in our alternate reality games? Besides our close friends and family, who else would we benefit from inviting to play with us?

And third: *What* activities should we be adopting as the core mechanics of our alternate reality games? Game design is a structure—goals, restrictions, feedback—but within that structure, we can ask players to do almost anything. What habits should we be encouraging? What actions should we be multiplying?

These three different sets of criteria are the subjects of the next three chapters, which in turn cover three key kinds of alternate reality projects: alternate realities designed to make difficult activities more rewarding, alternate realities designed to build up new real-world communities, and alternate realities designed to help us adopt the daily habits of the world's happiest people in our real, everyday lives.

CHAPTER EIGHT

Leveling Up in Life

HOW ALTERNATE REALITIES CAN MAKE DIFFICULT ACTIVITIES MORE REWARDING

If I have one regret in life," I complained to the crowd at the Austin Convention Center, "it's that my undead priest is smarter than I am." Technically speaking, it's true: if you were to add up every A I've gotten in my real life, from junior high through graduate school, the total still wouldn't come close to my *World of Warcraft* character's intellect stat. Never mind the fact that there's no score at all for getting smarter once you're out of school for good.

I was giving a keynote address at the annual design and technology conference SXSW Interactive when I made this lament. The topic was, naturally, the failures of the real world to be as engaging as a good game, and what we could do to fix it. As I told the crowd, "I'd feel a lot better if I got plus-one intellect for every smart thing I said during this talk. Or at least a few plus-one public speaking points." Giving talks is exhausting, even when I enjoy it, I explained. It would be energizing to see some +1s pop up right on top of my PowerPoint slides as I worked my way through the deck.

A few days later, back home in California, I received an e-mail from an unfamiliar sender: ratings@plusoneme.com. The subject was "Clay has acknowledged your strengths." Clay who? I wondered. I didn't know anyone named Clay. I opened the e-mail anyway.

> A friend of yours, Clay Johnson, +1d you to acknowledge some of your strengths. Specifically they're acknowledging these attributes:
>
> +1 Intelligence
> +1 Public Speaking
> +1 Inspiration
>
> Enjoy your day. And congratulations!

A second e-mail arrived a few minutes later, from Clay Johnson himself.

> Your +1 in public speaking as you requested at SXSW! It should have arrived in your inbox a little while ago. When you said that during your speech, I thought, "Why shouldn't she be able to get a +1 in public speaking?!" and built plusoneme.com. Great talk. Check out what you inspired.

I followed the link, and sure enough, there was a perfect little Web application dedicated to giving and tracking stats in an array of thirty-seven different personal strengths: creativity, generosity, speed, fashion, listening, and backbone, for example.

It was definitely a broader and more diverse set of stats than I'd even seen in a role-playing game. For every plus-one you send, you can also attach a reason: "+1 backbone for sticking up for our idea in the meeting," for example, or "+1 endurance for getting through the long drive home tonight." And you can send a plus-one to anyone via e-mail, regardless of whether or not they've signed up to play. If they join the site and create a profile, their plus-ones "stack," or add up over time. (So far, I'm up to +25 innovation, because I asked my colleagues to plusoneme when I do something innovative at work.)

You can add a plus-one feed to your blog or social network page so that your friends and family can see exactly how fast you're leveling up, in what strengths.

All in all, Plusoneme is pretty much exactly what you'd wish for if you wanted to level up in real life—that is, if you wanted to have an objective measure of how much better you're getting at the things you're working hard at.

Since he gave me my first plus-one, I've gotten to know Clay Johnson better. It turns out that he's the director emeritus of Sunlight Labs, a community of open-source developers dedicated to making government more transparent and participatory. We've had some very interesting conversations about how to use game feedback systems to increase democratic participation. Frankly, I wouldn't be surprised to see a Plusoneme.gov someday, to help constituents give better feedback to their elected officials.

Plusoneme isn't a game—there aren't any built-in goals, and there are no restrictions on how you give or earn a plus-one. It's more like a *gesture* toward a game, a kind of musing out loud: How would it feel to get constant, real-time positive feedback in our real lives, whenever we're tackling obstacles and working hard? Would we be more motivated? Would we feel more rewarded? Would we challenge ourselves more?

A growing number of alternate reality projects suggest that, for all these questions, the answer is a resounding yes. Systems that help us *level up in real life*, by providing us with voluntary obstacles related to our real-world activity and by giving us better feedback really can help us make a better effort. And that gives us our next fix:

FIX #8: MEANINGFUL REWARDS WHEN WE NEED THEM MOST

Compared with games, reality is pointless and unrewarding. Games help us feel more rewarded for making our best effort.

I hate flying, and I spend a *lot* of time hating it—on the order of over 150 hours a year.

I'm a nervous flier. I've gotten better over the years, but I still can't really work on planes, eat on planes, or sleep on planes. I certainly can't *enjoy* myself on planes. Half the time, I literally make myself sick with anxiety. Even after a good flight, I'm so exhausted from the stress and the jet lag that it takes hours or even a whole day or more to recover.

More than 25 million Americans have a fear of flying, while 52 percent of frequent fliers say that the number one word to describe air travel is "frustrating."[1] And this has significant consequences for our health and well-being.

Being out of control is a fundamentally stressful feeling. Researchers have shown that it takes a huge hit on both our happiness and our physical health. And it's not just in the moment that we're negatively affected. When we go through an experience that makes us feel endangered or powerless, our immune system suffers and we experience higher levels of anxiety, depression, and pessimism in the hours and days that follow.[2]

Games, of course, help put people back in control. Real gameplay is always by definition voluntary; it is always an exercise of our own freedom. Meanwhile, progressing toward goals and getting better at a game instills a sense of power and mastery.

The fact that commercial flying puts so many people on edge, so reliably, makes airports and airplanes the perfect target for a game-design intervention. If we could look forward to flights instead of dreading them, and if we could feel powerful at the start of our trip instead of helpless, the quality of life of frequent fliers worldwide would skyrocket. And the most fearful fliers would be able to go on more of the trips they want to take but currently avoid.

But what would make flying more authentically rewarding? Forget frequent-flier miles and other travel reward programs. If you're already frustrated or fearful about flying, earning more flights isn't going to make you any happier.

What we need are *intrinsic* reward programs—and two new games for fliers show exactly how it could be done: Jetset, the world's first video game for airports, and Day in the Cloud, an in-flight scavenger hunt designed to be played plane versus plane, at ten thousand feet and higher.

Jetset and Day in the Cloud

Jetset, an iPhone game created by Atlanta-based developers Persuasive Games, is a cartoon simulation of an airport security line. Load the game and, on your iPhone screen, you get to watch virtual passengers march through a cartoon metal detector while virtual luggage rolls through the X-ray machine. Your role in the game is to play the part of the security agent: tap the screen to confiscate banned items and to pat down suspicious passengers. Go too slow, and passengers miss their flights; go too quickly, and you might miss a banned item or let the wrong passenger slip by. The longer you play, the longer the line gets, the faster the security belt runs, and the harder it is to keep up with new security restrictions, like "no pressurized cheese," "no pet snakes," "no pudding cups," and "no robots."

The game's lead designer, Ian Bogost, is a frequent business traveler who came up with the idea for the game after suffering endless frustration in the security line himself. The game has a decidedly satirical bent, and player reviews often mention laughing out loud as they play.[3] That's one of the main goals of the game, Bogost told me: to make players laugh during a stressful situation. "Hopefully, it helps frequent fliers laugh at the absurdity of the airport security process instead of being overwhelmed or infuriated by it."

Technically, you can play Jetset anywhere you take your mobile phone. But the only way to officially level up and unlock souvenir prizes to send to friends and family is by playing the game at real-world airports. That's because Jetset uses the GPS data from your phone to figure out where in the world you really are. If your actual GPS coordinates match any of the hundred airports in the game's database, you get access to a customized airport game level that perfectly matches your real-world location. Complete that level, and you unlock a local achievement, or, in Jetset-speak, a "souvenir." For example, at Albuquerque International Sunport you can earn a virtual green chili pepper, while at Los Angeles International Airport, you win giant virtual sunglasses.

Every time you earn a souvenir, you can use the game's mobile Facebook application to send the virtual object as a gift to a friend or family member.

The gift lets them know not only that you've scored a game victory at the airport, but also clues them in to the fact that you're just about to start or finish a trip. In other words, Jetset helps you provide real-time travel updates to your social network as you play.

The more airports you visit, the more strange items you can amass for your souvenir collection and the more travel trophies you can collect. And if you're always flying in and out of the same airports? Then you can work on harder and harder levels to earn premium versions of your local souvenirs. Fly often enough in real life, and you'll get promoted up the virtual security ranks at your local airport. It's essentially FarmVille for airports, providing players with a sense of blissful productivity and social connectivity in an otherwise stressful environment. And that's what makes Jetset an alternate reality game, and not just another diversion. It's meant to improve players' real-life experience of a real-world environment.

Do the virtual souvenirs and power-ups have real value for the players? Bogost certainly hopes so. He specifically designed them to give frequent fliers something more fun and personally satisfying to aim for than miles and upgrades.

"Too many business travelers are obsessed with getting more miles even as they complain about how much they travel," Bogost told me. "It's a self-defeating system: it rewards you with more of what you already hate." Not to mention, relying on rewards of significant monetary value to keep people happy and motivated simply isn't a scalable solution. There's only so many free seats airlines are willing to give away, and only so many VIP members they're willing to recognize. As soon as too many people start earning rewards, Bogost notes, airlines simply change the rules to make it harder to win. That's not a very fair game.

By contrast, the potential intrinsic rewards of a good game like Jetset are nonexhaustible. Positive emotions can be provoked for everyone who plays, without limitation, and personal feelings of satisfaction, pride, and social connection are completely renewable resources. You can simply reward more people more often when the goal is an intrinsic reward.

Nothing epitomizes mandatory, mindless activity more than waiting in line

at the security or boarding lines at the airport. But Jetset is a special, *voluntary* mission you can undertake while waiting—in other words, an unnecessary obstacle. By focusing on the unnecessary obstacle of the game, instead of the mandatory obstacle of the real security and boarding process, you can instantly change your state of mind from negative stress to positive activation. You can't opt *out* of security and boarding rituals, but you can opt *in* to the game. It's a subtle, but powerful, way to change the dynamics of the situation. Instead of feeling external pressure, you're focused on the positive stress of the game.

What I like about Jetset most is the fact that when you play, you're not just sleep-walking through a part of your life that you hate. You're actively participating in the moment, taking full advantage of your location by undertaking a game mission you could *only* play while at that airport.

Taking full advantage of the moment is an important quality-of-life skill: it builds up your sense of self-efficacy by reminding you that you have the power at any time to make your own happiness. Jetset might not permanently resolve the ongoing frustrations of airport security and boarding, but it reminds us of our power to improve our own experience. And for that reason, it's an excellent signal of the role that *location-based games* can play in improving our quality of life in the future.

A good location-based game can transform any space into sites of intrinsic reward. Imagine the possibilities. Three of my favorite potential game sites are dentist offices, the department of motor vehicles, and public transportation.

Wherever there is a mandatory experience that is unpleasant or frustrating, a surefire way to improve it is to design a good game you can *only* play in that space. Jetset effectively tackles that problem for airports. But what about the experience of actually being in the air?

Enter the Day in the Cloud challenge.

> Accept the challenge.
> Scour the earth.
> Please remain seated.
>
> —Invitation to play Day in the Cloud[4]

Take two ordinary commercial flights, flying at the same time in opposite directions between the same two airports. Pit them against each other in an epic battle of online wits and creativity. Passengers spend the duration of the flight working together to earn as many points for their plane as possible. When both planes land, everyone on the plane with the highest score wins.

Day in the Cloud was a promotion dreamed up by Virgin America and Google Apps. It was initially run as a small playtest, on planes traveling between the Los Angeles and San Francisco international airports. And while it hasn't yet been implemented across the Virgin America fleet, it serves as a powerful indication of the kind of innovation that is possible in the air, using technology that's already fully in place.

The game takes advantage of Virgin America's sophisticated in-flight entertainment system, which includes seat-to-seat chat and instant messaging; a real-time Google map that displays the plane's location, altitude, and speed; and WiFi Internet access for laptops, mobile phones, and PDAs.

Once the plane gets above ten thousand feet—which is when the plane's WiFi system is turned on—players can power up, log in, and join the game, which consists of a series of several dozen puzzles and creative challenges that must be completed before the plane descends back below ten thousand feet.

Each puzzle and challenge corresponds to a different altitude—the higher the altitude, the trickier it is. A low-altitude puzzle, for example, might be as simple as completing a maze or answering a movie trivia riddle, such as: "*Ma'am, I believe you are doing more than just flirting with me.* What 1967 movie features a more memorable version of that line?" (Check the footnotes for the answer.)[5]

Higher-altitude puzzles involve trickier tasks, like Mensa-level code breaking, and juicier goals, like snooping through a game character's "real" online e-mail account to find secret bits of personal information. And if you're not a puzzle person, you can tackle creative challenges, like: "Write a theme song for Day in the Cloud. The lyrics should have one four-line verse and one catchy four-line chorus. You must include at least one rhyme for 'cloud,' 'cirrus,' 'stratus,' 'cumulus,' or 'nimbus' somewhere in your lyrics."[6]

The collection of puzzles and challenges is designed to be virtually impossible to complete alone over the course of the flight. That's where your

planemates come in. ("Planemates" might not be a recognized English word yet, but that's simply because we've been woefully underutilizing planes as social spaces.) Travelers are encouraged to work together, dividing and conquering the various challenges, and sharing solutions. You can partner with someone in your row, sharing a laptop together. Or you can use the seat-back communications system to trade ideas and answers.

The more passengers who play on a given plane, the higher the plane's potential score. So there's a real incentive to reach out to people who look friendly, curious, or just plain bored. And it's not just planemates that you can collaborate with during the game. The online game requires players to connect to the Internet, and once you're online it's easy to pick your friends' and family members' brains via e-mail or Twitter or IM. In fact, many Day in the Cloud players set up informal Twitter teams on the ground to help them out during the game. (Not everyone on the chosen flights knew about the game in advance—but one of the game's organizers told me afterward that about a dozen people on board each flight came prepared to play.) These on-the-ground collaborators serve as a kind of personal support system during the flight—not only good for the game, but also good for any anxiety and boredom you might ordinarily feel while flying.

A game timer shows you how long you have left in the flight, which is how long you have to finish solving your puzzles and completing your creative challenges. After the plane descends below ten thousand feet, the final scores are calculated and reported to both planes. As one player blogged after the flight, "Suddenly, I hear a big cheer come up from the whole plane behind me. 'We've won!'"[7] Winning passengers are greeted by Virgin America gate agents like conquering heroes when they walk off the plane.

All in all, it makes for quite a brilliant image: two planes passing in the sky, one heading north, the other south, trying to solve the same problems from above the clouds as they race along at hundreds of miles an hour.

Okay. So maybe this sounds fun, but you're still thinking: Why bother? Why add games to flights, when they already do what they're supposed to—get us safely from one part of the world to another? Do we really need to have "fun" and "adventure" and make "progress" all the time?

No, of course we don't.

If you're a good sleeper or worker on flights, or the kind of person who can relax and read a good book or just enjoy the view, then tuning out the game would be easy. You can and should go about your travel reality as usual. Many people will—during the Day in the Cloud playtests, roughly half the fliers on the test flights chose to play, while the other half went about their business.

But flying is difficult for many millions of people. It causes untold stress, anxiety, exhaustion. When something is that hard for so many people, when it causes so much daily suffering, needlessly, we should try to make it better if we can. If you're a nervous flier or get bored easily or just can't sleep on planes, an in-flight game could provide the kind of engagement and positive stimulation you need to actually start to enjoy and appreciate flying.

Day in the Cloud demonstrates quite clearly that the technology and desire is already here for a very different travel reality.

Consider some other possibilities. For example, an in-flight-only role-playing game that remembers exactly where you left off and picks up again whenever you board the plane. Its fantasy maps would overlay perfectly on top of the real-time Google maps. Each quest could be undertaken only while you're actually flying through that part of the realm.

Collaborative, GPS-enabled challenges would require you to partner up with someone on the ground within a hundred-mile radius of your plane and synchronize your virtual actions together as you fly overhead. Suddenly, flying over Nebraska is very different from flying over Kansas—because perhaps you have allies in Nebraska who can help you score more points, if you can get them to log on and play during those exact fifteen minutes you're flying overhead.

Of course, frequent-flier miles could also be made to be much more useful than they are now. For instance, you could distribute them as experience points across various categories of skill, talent, and ability to power up your in-flight avatar.

In-flight games even suggest a new model for earning seat upgrades—first player to score a certain number of points wins a first-class seat. As one Day in the Cloud player reported from the playtest, "At this point one of the

attendants asks if I would like to move to first class since there's more room and I'm effectively the star player. I'm a bit reluctant, being that I'd lose my newfound friends sitting next to me."[8] (In case you're wondering, he eventually convinced the attendant that they should all move up together, so they could keep collaborating.)

Ultimately, when every mile you cover in the air is a chance to rack up more mission points, and every passenger on the plane is a potential ally, and flying over a town or city is a chance to connect with the people who live there, the whole experience becomes charged with potential to do more than just get where you're going.

THE EXAMPLE OF in-flight games presents the basic case for developing games that connect with our everyday lives: these games can help people suffer less and enjoy the real world more. When an experience is difficult for us, offering challenging goals, tracking points and levels and achievements, and providing virtual rewards can make it easier to get through the experience. Ultimately, that's the most important work that game designers can do in the future: to make things that are hard for us as rewarding—as *intrinsically* rewarding—as possible.

But what about activities that we already enjoy?

Can games motivate us to make a better effort, even when we already love what we're doing?

Trying to improve an already enjoyable activity by adding points, levels, and achievements has its risks. Economists have demonstrated that offering people an extrinsic reward (like money or prizes) for something they're already doing—and already enjoying—actually makes them feel *less* motivated and *less* rewarded. But game points and achievements don't have extrinsic value yet—so as long as the main prize is glory, bragging rights, and personal fiero, the danger of devaluing a pleasurable experience with game feedback is relatively low. But it's not nonexistent. Like money or prizes, the opportunity to earn points and level up could potentially distract us from the initial reasons we like to do an activity.

Clearly, we have to be thoughtful about where and when we apply gamelike feedback systems. If *everything* in life becomes about tackling harder challenges, scoring more points, and reaching higher levels, we run the risk of becoming too focused on the gratifications of positive feedback. And the last thing we want is to lose our ability to enjoy an activity for its own sake.

So why risk it at all? Because measuring our efforts with gamelike feedback systems makes it easier for us to get better at any effort we undertake. As the great nineteenth-century mathematical physicist Lord Kelvin famously said, "If you cannot measure it, you cannot improve it." We need real-time data to understand our performance: are we getting better or worse? And we can use quantitative benchmarks—specific, numerical goals we want to achieve—to focus our efforts and motivate us to try harder.

Real-time data and quantitative benchmarks are the reason why gamers get consistently better at virtually any game they play: their performance is consistently measured and reflected back to them, with advancing progress bars, points, levels, and achievements. It's easy for players to see exactly how and when they're making progress. This kind of instantaneous, positive feedback drives players to try harder and to succeed at more difficult challenges.

That's why it's worth considering making things we already love more gamelike. It can make us better at them, and help us set our sights higher.

Nike+

Let's consider the gamelike Nike+ (or "Nike plus") running system, a motivational platform that is wildly popular among people who already love to run—especially those who want to run farther and faster.

> *Nike+*
> Stats! Stats! It got me out of bed to run this morning cuz I need BETTER STATS. It's real world achievement points! Who else will play with me? I seek challengers![9]
>
> —Message board post from a new Nike+ runner

The very first time I went running with the Nike+ system, I ran faster than I had in my entire life.

I was running my favorite route, a four-and-a-half-mile course in the Berkeley Hills. In six years, running it a couple times a week, I'd never once finished faster than 41:43. But on my first Nike+ run, I clocked in at 39:33, more than two minutes ahead of my all-time personal best. How in the world did I suddenly get so much faster? It's no mystery: I was motivated by better, real-time feedback and by the promise of online rewards when I got home.

Running, of course, is its own reward. You feel the endorphins, you clear your mind, you build stamina, you burn calories, you get stronger. But it's also a struggle—to find the time, to convince yourself that you have the energy when you'd rather sleep late, to go out whether it's hot or it's raining, and to fight off boredom doing a highly monotonous activity. Runners love running, but motivation is still an issue. So Nike+ is designed to provide an added layer of intrinsic motivation, beyond the runner's high and the physical results.

If you've never seen it in action, here's how Nike+ works. An inexpensive sensor—it costs about twenty dollars and is smaller than a poker chip—fits imperceptibly inside the sole of almost any standard Nike sneaker. It's activated by movement (thanks to an accelerometer) and communicates with your iPod (via radio transmitter) to tell you exactly how fast you're running and how far you've run. As you're running, presumably to your favorite music, the iPod screen displays your stats in real time.

Getting feedback in real time makes a huge difference when it comes to running faster and longer. Just being able to see when you're slowing down—something that happens unconsciously as you tire or lose focus—helps you bring your attention back to your pace. Meanwhile, pushing yourself to run faster is instantly more rewarding, because you get to see the numbers drop lower and lower the faster you go. It's one thing to set a time goal and try to reach it; it's another thing entirely to know every step of the way if you're running fast enough to achieve it.

When you get home, you can plug your iPod into your computer, and the Nike+ system will upload your data and add it to your running profile. That's

where the online rewards come in. Every mile you run earns you a point; score enough points, and you level up. There are six levels currently on Nike+, which follow the same color grading as martial arts belts: yellow, orange, and green; blue, purple, and black. Like any good MMO, you advance Nike+ levels quickly at first, but over time it takes more and more effort to reach the next level. Right now, I'm a level green runner, having logged 272 miles since joining, and I have 348 more miles to run to reach the blue level. That's an intimidating number, but I'm so motivated to level up that I bet I'll run the next 348 miles in even *less* time than I ran the first 272.

Based on the data the Nike+ sensor collects, you can also earn personal online trophies for best times and longest runs, as well as achievements for meeting training goals, like working your way up to a 10K distance or running a hundred miles in a hundred days. And when you've had a particularly good run, a famous athlete like Lance Armstrong will cheer you on before you even catch your breath, with a congratulatory audio message like this: "Congratulations! You've just recorded a personal best for the mile" or "Way to go! That was your longest run yet."

You can keep your running profile private and your accomplishments to yourself—if you want. Or you can push your stats and achievements out to your Nike+ friends online, to everyone you know on Facebook, or even to the whole world on Twitter. Perhaps my favorite Nike+ motivational feature is the "power song." It's the musical equivalent of a health pack or a power-up in a video game. Whenever you need a boost of energy or extra motivation to keep running or pick up speed, you simply hold down the center button on your iPod. That quick gesture automatically triggers your favorite, preset running song. For me, pressing the center button during a hard run feels like I'm unlocking some secret super-running power that I didn't even know I had. The faster pace, the pounding beat, the lyrics ringing in my ears like a personal mantra—it's the one time in the real world I feel like I have the ability to summon the kind of magical powers that I'm used to deploying in virtual worlds.

Add all that up—real-time stats, a leveling system, personal achievements,

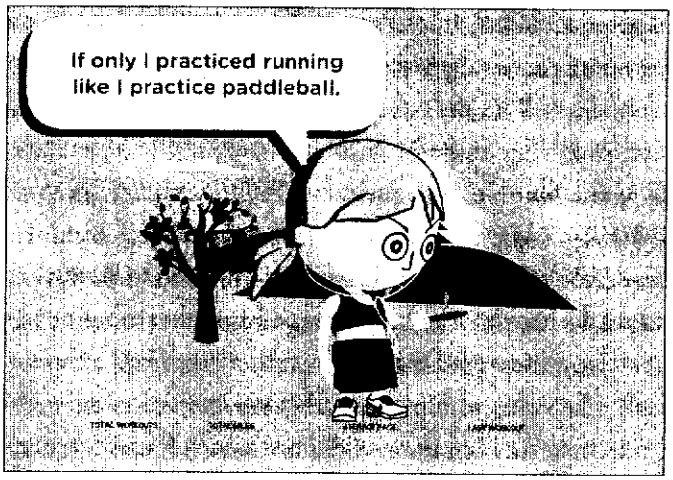
and your own personal power-up song—and Nike+ makes for a very good running game, one that uses better feedback and reward to help you put in a better effort and aspire to more than you would otherwise. But why play alone when you can play with others? It's the online community built around the Nike+ system that turns it into something really spectacular: not just a running game, but a massively multiplayer running game.

The Nike+ online community has more than 2 million active members, all of whom are collecting and sharing data about their runs in order to compete in challenges and contribute to team missions.

Anyone can design their own challenge and invite whomever they want to play with them. It can be competitive—everyone tries to get the best score—or collaborative—you try to get all of the participants to successfully finish the challenge before time runs out. Challenges can be as small as a two-player rivalry—husband versus wife or brother versus brother, for example: Who can log the most miles in a week? Or they can be set up as a team event for a group of friends or coworkers, with a dozen, or twenty, or fifty runners, or more—one neighborhood races another, for example, or every department for itself: how many teams can collectively log a thousand kilometers before time runs out?

The challenges can also be public free-for-alls, with hundreds, thousands, or even tens of thousands of competitors. As I'm writing this, there are more than seven thousand user-created public challenges to participate in, including the collaborative individual challenge of "running around the earth," in which each participant runs 24,902 miles—the challenge expires in the year 2027, making this ambitious goal seem a bit more reasonable—and a competitive team challenge for runners who go out with their dogs. (In this public challenge, players can join a team based on breed; out of fifty different teams, currently Labradors and beagles are leading the total mile count, followed closely by the mutts, but the Australian shepherds have the fastest pace.)

The challenge puts the runner's personal goals into a larger social context, which gives each jog more meaning. Every run is adding up to something—and depending on what motivates me most, I can join challenges that stoke my competitive spirit or call on my sense of responsibility to my teammates.



My Nike+ Mini trash-talks me.
(Nike Corporation, 2009)

Of course, no good MMO would be complete without an avatar. Nike+ is no exception. When you join the Nike+ community, you get to create a "Mini," officially described as your "tiny running partner," whom you can customize to look just like you. Your avatar's energy level and animations are based on your run activity: how far and how often you run. If you've put in a few good days in a row, your Mini is ecstatic and bouncing off the walls. If you've slacked off for a week or two, your Mini pouts and mopes and gently teases you for being such a slacker. Just a few days ago, my Mini was making faces at me and saying, "If only I practiced running like I practice paddleball."

Your Mini greets you whenever you log in to Nike+, you can embed it into your Facebook profile or blog (so others can see your avatar), and you can even download a screen saver starring your Mini at play (so you have to come face-to-face with your avatar even when you're not thinking about running).

Recent research suggests that this kind of ambient avatar feedback is remarkably effective. In a widely cited experiment conducted at Stanford University's Virtual Human Interaction Lab (VHIL), researchers demonstrated that watching customized, look-alike avatars lose or gain weight as we do exercise makes us work out longer and harder.[10] Participants who received

"vicarious reinforcement" from their avatars volunteered to do on average eight times more exercise repetitions than participants without avatar feedback. That bodes well for the potential use of Mini-like avatars at home or at gyms, where people are more likely to work out in front of screens. (And, in fact, many home fitness games, including *Wii Fit* and *EA Sports Active*, use avatar feedback to engage players in harder workouts.)

But there's no reason that people working out need to be stuck in front of a screen to get the benefit of avatar feedback. In another experiment, Stanford VHIL researchers discovered that simply showing subjects a short animation of their look-alike avatar running in the laboratory inspired subjects to spend on average an hour more running in the first twenty-four hours after they left the laboratory. (There was no motivation effect watching a random avatar; it worked only when the avatar was highly customized to look like the subject.)

The researchers theorized that seeing virtual versions of themselves doing a positive activity stimulated memories of the subjects' own real-life positive experiences, making them more likely to reengage in the activity. They were careful to note in their findings that participants in the study, all college-age students in northern California, were generally healthy and fit. There was no evidence to suggest that someone who hates running would be likely to run for an hour after seeing their avatar do it. The avatar reinforced positive feelings about running, rather than creating them from scratch.

Yesterday, after my first run in a couple of weeks, my Mini danced around my iPod smiling, saying, "I can hardly contain myself! I'm a running machine!" Today, after another run, she's leaping over hurdles and shouting, "I can do anything! I feel amazing!" I have to admit—the animations are a fairly accurate depiction of my own inner runner. It's definitely working the way the Stanford researchers theorized it should: my Mini reminds me of why I love to run and therefore makes me more likely to get out of the house and do it.

But there's also something else going on. I find that I want to run more in order to make the Mini happy.

Though it might seem ridiculous, this kind of emotional connection happens in games all the time—especially in tending and caretaking games, like the Xbox *Viva Piñata* series, in which players have to support an ecosystem of

"living," wild-roaming piñata animals, or the Nintendo *Pikmin* series, which puts the player in charge of an army of eager-to-please but dumb and highly vulnerable creatures. MIT researcher Judith Donath has studied the emotional attachment we form to virtual creatures. She argues that game characters programmed to appear dependent on us for their well-being provoke a hardwired human desire to nurture and care for them, and it doesn't hurt that they are cute, helpless creatures. "Time spent playing with them feels like care-taking, an act of responsibility and altruism," Donath explains. "We develop empathy for them and become invested in their well-being."[11] Naturally, then, the happier our virtual creatures appear to be as a direct result of our actions, the more satisfied we are as effective caretakers.

Virtual-creature happiness is not nearly as obvious a feedback system as points, levels, and achievements. But it's part of a larger potential field of reward innovation, as we continue to learn how to better motivate ourselves by applying the best design strategies of games to our real-life activities.

THE MORE we start to monitor and self-report our daily activity, whether through GPS, motion sensors, biometric devices (to track heart rate or blood sugar levels, for example), or even just with manually entered status updates, the more we'll be able to chart our progress, set goals, accept challenges, and support each other in our real lives in the way we do in our best games. Given the overwhelming success of the Nike+ system, it's not difficult to imagine adopting some of the Nike+ strategies for other activities that we want to do faster, more often, or simply at a higher level.

I for one would have loved a Writing+ system while writing this book. I'd have a "mini" writer whose mood and energy was based on my daily word count. I'd have the opportunity to earn achievements, like showing up to write ten days in a row, or to set a personal best for most words written in a day. The system could also keep track of the complexity of my writing—how many words I use per sentence, and how many sentences per paragraph, for example. I could use this data to improve the clarity of my writing and vary its structure. I could set up friendly rivalries with other authors—both friends in

real life and authors that I'm a fan of. I think I would have been a lot more inspired to write if I knew I'd be able to compare my daily writing stats against the real-time stats of my favorite fiction writers—Curtis Sittenfeld, Scott Westerfeld, Cory Doctorow, and Emily Giffin.

Any project or challenging hobby that we're working on that we want to see through to completion would benefit from more gamelike feedback and ambient support. We may be looking at a future in which everything we do can be "plus": Cooking+, Reading+, Music+.

Maybe even . . . Social Life+?

That's the idea behind Foursquare, a social networking application designed to motivate players to lead a more interesting social life.

Foursquare

The premise of Foursquare is simple: you'll be happier if you get out of the house more and spend more time face-to-face with your friends.

Created by independent New York City–based developers Dennis Crowley and Naveen Selvadurai, Foursquare takes its name from the classic red-rubber-ball playground game. To participate in Foursquare, you simply log in to the mobile phone application whenever you show up somewhere public that you deem fun, then tell the system where you are. That's called a "check-in," and you might find yourself checking in from a restaurant, bar, café, music venue, museum, or wherever else you like to go. Whenever you check in, Foursquare then sends real-time alerts to your friends so they can join you if they're free and in the neighborhood. It also lets you know if any of your friends are already nearby, in case you want to meet up with them. Most importantly, Foursquare keeps track of where you've been, when, and who you've checked in with, if they're playing Foursquare, too. By mid-2010, more than a million people were tracking and sharing data about their social lives using the Foursquare system. And more than three-quarters of those users were checking in thirty or more times each month.[12]

Out of all this data, Foursquare produces a series of online metrics about your social life: how often you go out, how many different places you visit, how many different people you spend time with each week, and how frequently you visit your favorite spots. On their own, these metrics aren't that interesting. They're just data, a way to quantify what you're already doing. What really makes Foursquare engaging is the challenge and reward system built around the data.

The most popular Foursquare feature is a competitive challenge called The Mayor. The rules read: "If you've got more check-ins than anyone else at a particular place, we deem you 'The Mayor' of that place. But once someone else comes along who has checked in more times than you, they then steal the 'Mayor' title back from you." As soon as you become mayor, Foursquare sends an announcement to your friends congratulating you. Even better, some bars and restaurants have set up special deals for whoever happens to be mayor at any given time. The Marsh Café in San Francisco, for example, lets the current mayor drink for free. Of course, this is also a smart move on the part of the café—players have extra incentive to bring their friends there nightly to try to achieve or hold on to the mayor status, boosting business throughout the week. It's also a good example of how traditional brick-and-mortar companies might be able to augment their services by more actively taking part in this popular reality-based game. Currently, hundreds of venues—from the Sacramento Zoo to a Wendy's fast-food restaurant in the student union at the University of North Carolina Charlotte—offer deals or freebies for Foursquare players.

Why do people love the idea of becoming the mayor? Because trying to become mayor of your favorite city spots gives you a chance to keep doing something you already love, but do it more. It gives you an excuse to spend as much time as possible at the places that make you happiest. And when you notice someone else vying for your mayor status, you get an instant friendly rival, motivating you to visit your favorite places more often, the same way a Nike+ challenger pushes you to run faster and longer.

Foursquare is also a personal achievement system, consisting of virtual tro-

phies and badges. Trophies automatically unlock in your profile when you celebrate checking in to your tenth, twenty-fifth, fiftieth, and hundredth different venues in a single city. In order to earn these trophies, you can't just be content with being the mayor at one place. You have to venture outside your usual spots and expand your social horizons. You can also earn badges like the Foodie badge, earned by checking in to Zagat-rated restaurants in New York, San Francisco, Chicago, and other major cities, or the Entourage badge for checking in at the same time and place as ten or more of your Foursquare friends.

In the end, what makes a Foursquare social life better than your regular social life is the simple fact that to do well in Foursquare, you have to enjoy yourself more. You have to frequent your favorite places more often, try things you've never tried before, go places you've never been, and meet up more often with friends whom you might not ordinarily make time to see in person. In other words, it's not a game that rewards you for what you're already doing. It's a game that rewards you for doing new things, and making a better effort to be social.

There's one more significant benefit to adding compelling stats to your social life. Because players want their statistics to be as accurate (and impressive) as possible, they're more likely to remember to check in and send status updates about where they are. That makes it easier for their friends to find them, and therefore more likely to make plans to see them.

Ultimately, the real reward of seeing friends more often and breaking outside your routine has nothing to do with virtual badges or social life points or online bragging rights. The real rewards are all the positive emotions you are feeling, like discovery and adventure; the new experiences you're having, like hearing more live music and tasting more interesting food; and the social connections you're strengthening by being around people you like more often. Foursquare doesn't replace these rewards. Instead, it draws your attention to them.

Some people, of course, are natural social butterflies or nightlife adventurers. For others—workaholics, homebodies, introverts—getting out and doing something new is no small feat, especially when there are so many compelling reasons to stay in our own living rooms.

There's a popular gamer T-shirt that shows an Xbox Live–style badge of a door ajar with these words alongside: "Achievement unlocked: Left the house."[13] It's a joke, but it also speaks to the real challenges of trying to lead a meaningful, balanced life in the nonvirtual world. As we struggle to find the right balance between virtual and real-life adventures, a game like Foursquare can nudge us in the right direction and help us put our best efforts where we can reap the most satisfying rewards: back in the real world, with the help of a good game.

CHAPTER NINE

Fun with Strangers

HOW ALTERNATE REALITY GAMES CAN CREATE NEW REAL-WORLD COMMUNITIES

It's a cold and dreary afternoon, and you're walking down a busy street. You're lost in your thoughts when suddenly a woman's voice whispers in your ear, "There's a lover nearby . . ." You look around, but everyone seems as lost in their own world as you were just a few seconds ago. If there's a lover nearby, you have no idea who it is.

Then you hear the voice again, this time updating you on your game statistics: "Your life is now at level six." That's one level higher than it was before the lover passed by.

Some stranger on the street just gave you a life.

But who was it? Is it that kid sitting on the steps now a few buildings behind you, with his earbuds tucked in? He looks like he's listening to music—but is he listening for lovers, too? Or is the lover that man in the suit with his Bluetooth earpiece, pacing back and forth? He looks like he's on a business call—but could he be your secret benefactor?

Or has the lover moved on? Perhaps you are on your own again.

You haven't gone another half block when the voice interrupts, this time more insistently, "There's a dancer nearby." Then, right away: "There's *an-*

other dancer nearby. Your life is now at level four." Damn! Who just stole two lives from you?

It must be a couple, playing together, because you've lost two lives in such rapid succession. You spin around and notice a couple holding hands walking in the opposite direction. They might be wearing headphones under their hoods. You didn't notice them before, but they must be the dancers. You hurry down the block before they circle back and take another life from you.

Clearly, you need to find some other lovers as quickly as possible, team up, and restore each other's life levels. If your life falls to zero, you're out of the game. But how do you discover the other players hidden in the crowd? As the game instructions suggest, "You could find a stranger and ask them, 'Are you a Lover or a Dancer?'" But that feels too forward, too abrasive. You feel more comfortable scanning the crowd, looking for people who seem to be looking for others. That way, you can gravitate toward the most promising strangers, stand near them, and wait to see if your life level goes up or down.

If nothing happens, you know they're not playing the game and you don't have to bother them. But if your life level goes up, you can try to smile and make eye contact. You can try to show the stranger that you can be trusted. . . .

Learning how to offer comfort to strangers, and how to receive it, is the primary challenge of a game called, naturally, the Comfort of Strangers. It's a game for outdoor city spaces, designed by British developers Simon Evans and Simon Johnson. It's played on PDAs and phones with Bluetooth detection that alert you via your headphones or earpiece whenever other players are within a few yards' distance. The PDAs automatically detect other players within a few yards and register a gain or loss of life whenever you cross paths. Half the players are "lovers"; they form one team. The other half are "dancers," and they form the opposing team. If you encounter a player on your team, you gain a life; if you encounter a player on the opposing team, you lose one.

The Comfort of Strangers is played anonymously; you can download and start the application and wander out into the city streets without any idea of who else is playing or how many players there are. There's no visual or screen element to the game, so you can play it quite discreetly, with your PDA tucked

into a pocket. The only clue that you're playing is that you're wearing headphones—but it's easy to blend in with the increasing number of people who wear earbuds or earpieces while out in public spaces.

At the start of the game, you don't know what side you're on. You have to learn whether you're a lover or a dancer by listening to the voice that whispers in your ear and keeping track of whether your life is going up or down. Everyone starts the game with ten lives, and when only one team remains alive, the game ends.

According to Evans and Johnson, the game is designed to evoke the feelings of loneliness and anonymity that are a mainstay of urban life—as well as to provide opportunities for strangers to mean something to each other, if only briefly. As they explain, "The game immerses players in the crowd, exposing them to the ambivalent feelings aroused by city life, the freedom of anonymity and its loneliness. Out of the drive to stay in the game, players create ad hoc, or improvised, social groups."[1] They have to develop their intuition about how to tell who else is playing, and therefore who represents a part of the game community. They learn to see strangers for the potential relationships they represent, not just as obstacles to avoid as they pass by.

The emotional impact of the Comfort of Strangers is intense. It not only heightens your awareness of the potential for strangers to play a role in your life, it also provokes a real curiosity about others, and a longing to connect. When you start the game, you feel like you might be the only one playing. Each time you encounter another player, it's reassuring—even if they're on the other team. When I asked Simon Johnson about the social goals of the game, he told me this was intentional:

> We wanted our players to find some way to connect with the strangers around them, so we tried to make them feel lost and alone. We set the game up to create a degree of uncertainty in players as to who was and was not playing. We played with the boundary between players and nonplayers so that finding another playing stranger always brings you comfort, even if they're on the

> opposite side. Because at least they understand your actions, they understand that you are part of the same game.[2]

The Comfort of Strangers can be a short game or a long game, depending on how willing players are to overcome their hesitations about reaching out to strangers, and depending on how tightly they can learn to stick together in the crowd.

In theory, if such a game became immensely popular, you could play it all the time, as part of your regular routine—you'd simply turn the game on whenever you walked outside and always keep open the possibility of running across another player as you went about your ordinary business. But in practice, while games like this are still relatively new, there isn't a critical mass of players to accommodate continuous play. Instead, players organize games online and set precise windows of time and playing fields: for example, in a certain neighborhood, during a certain hour, on a particular date. This kind of advanced schedule keeps players anonymous, but ensures there will be enough density of play for players to have a good chance of encountering each other.

Because a critical mass is so important to games like the Comfort of Strangers, in 2008 Evans and Johnson cofounded an annual Bristol-based festival called Interesting Games, or Igfest, for innovative outdoor games. The festival is meant to provide support for and exposure to other game developers who are working to make cities more interesting and friendlier spaces. And it's one of an increasing number of urban game festivals worldwide—from the annual Come Out & Play festival in New York City, founded in 2006, and the Hide & Seek Weekender festival in London, founded in 2007, to the Urban Play festival in Seoul, South Korea, founded in 2005—that are designed to test the power of games to improve the feeling of community in real-world spaces.

These outdoor game festivals gather critical masses of players together for an entire week or weekend of games with the aim of helping to introduce these games to the public at large. They also embody our ninth fix for reality in action:

FIX #9: MORE FUN WITH STRANGERS

Compared with games, reality is lonely and isolating. Games help us band together and create powerful communities from scratch.

What does it mean to create a community from scratch?

It's hard to pin down the difference between a community and a crowd, but we know it when we feel it. Community feels *good*. It feels like belonging, fitting in, and actively caring about something together. Community typically arises when a group of people who have a common interest start to interact with each other in order to further that interest. It requires **positive participation** from everyone in the group.

In order to turn a group of strangers into a community, you have to follow two basic steps: first, cultivate a shared interest among strangers, and, second, give them the opportunity and means to interact with each other around that interest.

That's exactly what a good multiplayer game does best. It focuses the attention of a group of people on a common goal, even if they think they have nothing in common with each other. And it gives them the means and motivation to pursue that goal, even if they had no intention of interacting with each other previously.

Does a game community among strangers last? Not always. Sometimes it lasts only as long as the game itself. The players might never see or talk to each other again. And that's perfectly okay. We often tend to think of communities as best when they're long-term and stable, and certainly the strength of a community can grow over time. But communities can also confer real benefits even when they last for mere days, hours, or even minutes.

When we have community, we feel what anthropologists call "communitas," or spirit of community.[3] Communitas is a powerful sense of togetherness, solidarity, and social connection. And it protects against loneliness and alienation.

Even a small taste of communitas can be enough to bring us back to the social world if we feel isolated from it, or to renew our commitment to participating actively and positively in the lives of people around us. Experiencing a short burst of community in a space that previously felt uninviting or simply uninteresting can also permanently change our relationship to that space. It becomes a space for us to act and to be of service, not just to pass through or observe.

Comfort of Strangers designers Evans and Johnson believe that experiencing communitas in an everyday game can spark a taste for the kinds of community action that make the world a better place. Learning to improvise with strangers toward a shared goal teaches players what they call "swarm intelligence"—intelligence that makes people better able and more likely to band together toward positive ends. "As we're making these games, we dream of the other revolutionary things swarm intelligence might make possible. Low-carbon futures, mass creativity, living happily with less."

It's not such a radical idea. To see why, let's look at two other games designed to create unexpected moments of communitas in a specific shared space: Ghosts of a Chance, a game for a national museum, and Bounce, a game for a retirement center. Both groundbreaking projects demonstrate the growing importance of having more fun with strangers and of using games to build our own capacity for community participation.

Ghosts of a Chance: A Game to Reinvent Membership

Most museums offer memberships where members pay an annual fee and can then visit the museum as often as they'd like. It's a good way to raise money and promote visitation, but it's not a particularly good way to experience membership. Members of the museum are, for the most part, like any other visitor: they take in the museum's offerings, but don't interact with other members, or even know who they are.

Recently, the Smithsonian American Art Museum set out to experiment

with a new model of museum membership, a way to *really* belong to a museum. It's a model that calls for members to contribute real content to the museum's collection and to collaborate with each other online in between museum visits. To test this more participatory model of membership, the Smithsonian developed a six-week alternate reality game called Ghosts of a Chance for one of its main facilities, the Luce Foundation Center for American Art.

The Luce Foundation Center is described as a "visible storage facility" for the Smithsonian. It displays more than thirty-five hundred pieces of American art, including sculptures, paintings, craft objects, and folk works, in densely packed floor-to-ceiling glass cases. Its primary purpose is to display as much of the vast Smithsonian collection as possible, much more than can typically be included in the other galleries.

Because it's so packed with art, visiting the Luce Foundation Center is a bit of a treasure hunt already: among all the diverse pieces, you have to seek out the special objects that speak to you most. The center has at the core of its mission teaching visitors to really hear what the art objects have to say, and its educational materials often focus on how art is a window into the lives and times of its creators. There's a sense in the museum that history lingers in the art objects almost like a ghost, waiting to whisper its tales to visitors. Learning how to hear those tales, and how to whisper our own histories through artwork, was the inspiration for the Ghosts of a Chance game.

The game begins with what at first seems like a real press release from the museum. Members, as well as public visitors to the museum's website, are invited to meet two new curators at the center, Daniel Libbe and Daisy Fortunis. According to the press release, they will both be writing about their work on blogs and their social network pages. Read the fine print, however, and you realize Daniel and Daisy aren't real curators. They're fictional characters in a new, experimental game produced by the Smithsonian. And if you want to find out more, you have to friend these fictional characters on Facebook and start following their blogs.

That's when you discover that Daniel and Daisy are having a rather extraordinary experience: they're communicating regularly with two ghosts haunting

the Luce gallery, a man and a woman who lived a century and a half ago. Angered at being forgotten by history, the ghosts are threatening to destroy the museum's precious artifacts—and they won't rest until *their* stories are represented in the museum's glass cases.

Frightened but resourceful, Daniel and Daisy make special arrangements for a one-day exhibit called, naturally, Ghosts of a Chance. But ethereal ghosts can't make real art—so Daniel and Daisy need the museum members to help. It's up to them, the players, to interpret the two ghosts' histories—by transforming their tales into art objects that the curators promise to display in a special gallery event.

And so a gameplay mechanism is established. Each week, the ghosts reveal a new dramatic chapter in their lives to Daniel and Daisy, describing in mysterious terms the kind of art piece that they feel would best capture their secret histories. Daniel and Daisy then pass on the new information to members of the game and charge them with the important mission of making that art real, then sending it to the Smithsonian for inclusion in the exhibit.

In the first mission, for example, players learn that one of the ghosts is tortured by memories of a dear friend, a young lady from a very wealthy family:

> She's a girl from another time, she blushes and rustles as she passes, taffeta skirt buoyed by crinolines. She has taught herself to fling her burnished curls with just a turn of her head; she and her sister practiced for hours in front of an oval mirror. At twenty, she is poised; she understands her value; her next great adventure awaits her. A mate. Travel. Then, domesticity—which involves a love of gardening, cleanliness and the proper care of servants. . . .[4]

Players are then challenged to craft this girl's most prized piece of jewelry, what the ghosts call the Necklace of the Subaltern Betrayer. Instructions for designing the necklace are spare, and poetic: "The Necklace I want should fit perfectly around her neck, but remain there only long enough for me to steal it right off again."

Players discussed the challenge in online forums: What does "subaltern"

mean? (They learned that it is a political-science term for people who lack power or social status in a given society.) They debated: Should the necklace be old-fashioned, or a modern interpretation of the tale? They collaborated to unpack the meaning of the tale, to analyze the cultural clues embedded in it, and to strategize about how to craft a necklace that could evoke such a story and communicate such intense feelings.

As a community, the players decided the necklace should convey what it would feel like to wear the heavy and inflexible societal expectations of a woman of money and privilege. One player created a necklace titled "Someone to Watch Over Me," comprising more than a dozen squares of fabric, each screenprinted with the image of a different staring eye. The eyes are stacked on top of each other in geometric sets of one, two, and three, and strung along a pretty pink ribbon. The aesthetic is both girly and intimidating. Another player submitted a necklace titled "Enclosure," which appears to be constructed from barbed wire strung with rubies. Both the title and design of the work suggest that its wearer is trapped and limited by her social status, her riches preventing her from living the life she might otherwise pursue.

All of the player-created artifacts received by the museum were cataloged online and archived at the Luce Foundation Center. Players around the world could see the different interpretations of the challenge—either online or in person by visiting the objects on temporary display at the museum. In the end, more than six thousand Smithsonian members and fans participated in the online experience, while two hundred fifty attended the opening of the Ghosts of a Chance exhibit in person.[5]

Why design a game, instead of issuing an open invitation to design for the museum? There are two good reasons. Because it was a "game" and not a serious art competition, people who wouldn't normally feel capable of contributing artwork were free to try without risking embarrassment. The game structure, with its clues and narratives, also gave a larger and more atypical museum membership—in this case, mostly students and teenagers—an opportunity to participate in the making of the exhibit, through online discussion and analysis of the artworks, even if the members didn't contribute art them-

selves. These players helped serve as virtual "curators" for the Ghosts of a Chance exhibit.

To become a member of any community, you need to understand the goals of the community and the accepted strategies and practices for advancing those goals. Participating in Ghosts of a Chance educates museumgoers about both. Although it was a game, the participating players were treated seriously as both artists and curators. As Nina Simon, a leading expert on the use of technology in museums, reported at the time, "The game artifacts [were] officially entered into the collection database and stored (and accessed) the way other artifacts are—via appointment, white gloves, that sort of thing. In this way, the secret rules of museums become new hoops for the gamers to jump through—hoops that will likely add a level of delight as they expose the inner workings of the museum."[6] In other words, the gameplay knocks down the "fourth wall" that usually separates the work of the museum's curators and the visitors. And in doing so, it completely reinvents the idea of museum membership, making it possible for a real museum *community* to emerge.

We have become accustomed to viewing museums as spaces of consumption—of knowledge, of art, of ideas. Ghosts of a Chance shows how we can turn them into spaces of meaningful social participation, driven by the three fundamental components of gaming communities: collaboration, creation, and contribution toward a larger goal.

Bounce: A Game to Close the Generation Gap

What would it take to convince young people to call their grandparents more often? Better yet, what would it take to convince young people to call someone *else's* grandparents while they're at it?

Those were the twin goals of a project called Bounce—a telephone conversation game designed to support cross-generational social interaction.

Bounce takes just ten minutes to play. When you call the game, you're connected live on the phone with a "senior experience agent"—someone at

least twenty years older than yourself. You follow a series of computer prompts to swap stories about your past, in order to discover life experiences you have in common. For example: What is something you both have made with your own two hands? What is a useful skill that you were both taught by a parent? What is a faraway place you both have visited? Your goal: find out how many points of connection you can make with your senior experience agent before time runs out.

Bounce was the effort of a four-person team of computer scientists and artists at the University of California, myself included. We set out to design a computer game that would spark a stronger feeling of community across the generation gap.

There is a significant need for a game like this as retirement communities, senior centers, and continuous care homes can be very socially isolating. This is partly an environmental problem: they are typically single-use spaces, without significant cross-traffic, and there's little opportunity for the mingling of different age groups. But it's also partly a cultural problem: major studies at Harvard and Stanford have demonstrated that a prejudice against the elderly is one of the most widespread and intractable social biases, particularly in the United States and especially among people under the age of thirty.[7] Young people commonly associate older age with negative traits like diminished power, status, and ability, leading them to avoid interacting with people they perceive as elderly, even their own loved ones.

Our team spent the better part of a summer brainstorming potential concepts for a game to help bridge the generation gap more gamefully, and as part of that process I personally spent quite a lot of time on the phone with two important seniors in my life: my grandfather Herb, who was ninety-two years old that summer, and my husband's grandmother Bettie, who was eighty-seven. I was doing "user research" with them, figuring out what kind of gameplay might be fun and easy to grasp quickly—particularly for older people who are not used to playing computer games—as well as to figure out the best way to get them to interact with the game technologies.

It was immensely rewarding to spend so much time on the phone with

them. Phones were, of course, a familiar technology for both parties, easy for all concerned to access and use anytime. Talking on the phone was so rewarding and easy, in fact, that it eventually became obvious that giving young people a fun reason to call seniors on the phone should be the objective of our game.

But how do you build a computer game around making a phone call? We decided that we would make the game for two players at a time, since phone calls are most satisfying between two parties. The only rule? The players should be at least twenty years apart in age. Both players would need to be on the phone, of course, but since seniors are less likely to have constant access to a personal computer, we decided that only one of the two players should need to be in front of a computer. That player would log in to the game website, then call the other player.

We called the game Bounce, after the kind of exchanges we hoped to inspire: a quick, easy bouncing of life stories off each other.

The website prompts the players with collaborative interview questions: What's a body of water you've both swum in? What's a book you've both recommended to a friend? What's an experience that has made both of you nervous? The challenge is to discover a single answer for each question that is true for both players. Answers could include, for example, "We've both swum in the Pacific Ocean" or "We've both been nervous going on a first date." When you come up with a shared answer, one player types it into the game database. You have ten minutes to answer up to ten different questions total from the database of one hundred possible questions, and you can pass on any question. The game website counts down the ten minutes and reveals your score at the end.

We ran the game as an experiment for one week, based out of a senior recreation center in San Jose, California. With this kind of game, you don't want an open invitation to play; there needs to be a level of trust that the people calling will participate with a positive attitude. So we distributed the senior center's phone number via e-mail and social networks to trusted friends, family, and colleagues. We also gave out the phone number to attendees of an

art and technology festival in nearby downtown San Jose, expecting that anyone who participated in the festival was more likely to be a positive player, and not a "griefer"—someone looking to spoil the game, rather than play it. We used a live matchmaker at the senior center to pair off the phone-in players with the seniors.

It was a bit of a risky proposition for both the seniors and the younger players. After all, talking with a stranger can be awkward, but the game provided a clear structure and set topics for conversations. The fact that both parties on the call were working toward the same goal—a high score—created an instant connection.

The players' strategies varied. One kind of player would rush to list every place they'd been swimming, for example, while another would prompt their partner with inquiries like, "Where did you grow up? Were you near any lakes? Have you taken any trips to any oceans?" Common answers often prompted rushes of recognition, "Oh my god, wait—I do know that river! My parents took my sister and me rafting there when we were kids!" Uncommon answers just as often led to a chatty diversion from the gameplay: "You went swimming in Alaska? Did it hurt?"

Our prototype was highly successful. Nearly everyone who played once came back (or called back) to play again, and the senior players reported much higher moods after playing the game. The simple fact that they were described as "senior experience agents" in the game seemed to play an important role in their enjoyment. It set a playful tone and gave them confidence that they could participate. But perhaps the most successful design element was the score, which was both a number—your total answers out of a possible ten—and a poem.

We wanted both players to leave feeling like they had not only talked to each other, but created something together. So at the end of the game, the website turned the players' answers into a simple, free-verse poem. Players could print the poem out or e-mail it. Poems are also captured and viewable online. Here's an example of one of the free-verse poems that two players created as their final score together:

Rougemont, making wedding pictures, tango in a barn,
Bend paper clips, cinnamon buns, tongue of a cow,
In a skirt, in the Pacific, putting together a darkroom.

Each phrase of this poem represents something two strangers, at least twenty years apart in age, shared in common so far in their lives.

Now, I've never met the two players who both bend paper clips when they're nervous and have both tangoed in a barn, but I can imagine them, meeting each other for the first time on the phone and realizing how many shared events had led up to this moment in their lives.

In the end, the fun of the game is quite simple: the phone rings, and it's a stranger, and just by chance you get to discover someone very different from you who has nevertheless lived a similarly fascinating life. Of course, the game can also be played with relatives and neighbors, and more than once, because it can produce thousands of unique interview sessions.

When you start to realize how many interesting life experiences you might already share with someone from a completely different generation, there's no limit to the number of connections you can make. And a game like Bounce makes it much easier to reach out to someone whose life might benefit greatly from knowing you better.

THE THREE GAMES described in this chapter demonstrate how quickly and effectively a game can help us band together to experience a burst of communitas and participate more actively in the social commons.

Community games have important benefits to our real lives. They may lead us to new interests—public spaces or public institutions we discover we care about more than we'd thought, or activities like storytelling and art that we want to pursue with others. Even when the game ends, we may find ourselves participating more in these spaces, institutions, and activities than before.

On the other hand, the communitas we feel may be just a short spark of social connection, nothing more. But even playing a very short game to-

gether, we are reminded of how much we share with even the strangest of strangers. We gain confidence that we can connect with others when we want to, and when we need to.

And with that confidence, there is no reason to ever feel alone in the world—virtual, real, or otherwise.

CHAPTER TEN

Happiness Hacking

HOW ALTERNATE REALITIES CAN HELP US ADOPT THE DAILY HABITS OF THE WORLD'S HAPPIEST PEOPLE

Shout compliments at strangers on the sidewalk.

Play poker in a cemetery.

Dance without moving your feet.

Maybe these aren't exactly your typical doctor's orders. In fact, I'm pretty sure no psychologist has ever prescribed these activities. But each of these three unusual instructions *is* directly inspired by practical recommendations taken straight from positive-psychology manuals. For example:

- Practice random acts of kindness twice a week. (The reward center of the brain experiences a stronger "dopamine hit" when we make someone else smile than when we smile first.)
- Think about death for five minutes every day. (Researchers suggest that we can induce a mellow, grateful physiological state known as "posttraumatic bliss" that helps us appreciate the present moment and savor our lives more.)
- Dance more. (Synchronizing physical behavior to music we like is one of the most reliable—not to mention the safest—ways to induce the form of extreme happiness known as euphoria.)

These three guidelines represent some of the most commonly prescribed happiness activities today; the first set of instructions just offers more *gameful* interpretations of them.

What, exactly, are happiness activities? They're like the daily multivitamins of positive psychology: they've been clinically tested and proven to boost our well-being in small doses, and they're designed to fit easily into our everyday lives. There are dozens of different happiness activities in the scientific literature to choose from in addition to the three listed above, ranging from expressing our gratitude to someone daily to making a list of "bright-side" benefits whenever we experience a negative life event. And they all have one thing in common: they are backed by multiple million-dollar-plus research studies, which have conclusively demonstrated that virtually anybody who adopts one as a regular habit *will* get happier.

Of course, if it were *that* easy, we'd all be a lot happier already. In fact, by nearly all measures, we're *not* substantially happier as a planet than we were before the rise of positive psychology in the 1990s. Rates of both clinical depression and mild depression globally are increasing so quickly, the World Health Organization recently named depression the single most serious chronic threat to global health, beating out heart disease, asthma, and diabetes.[1] In the United States, where we frequently put on happy faces for each other in public, we admit in private to surprisingly low levels of life satisfaction. In one recent nationwide survey, more than 50 percent of U.S. adults recently reported that they "lack great enthusiasm for life" and "don't feel actively and productively engaged with the world."[2] This is despite the fact that we have—more than ever before—better and wider access to evidence-based self-help tools in the form of best-selling positive-psychology books, not to mention countless magazine articles and blog posts.

So what's the problem? It turns out that *knowing* what makes us happy isn't enough. We have to act on that knowledge, and not just once, but often. And it's becoming increasingly obvious that it is just not that easy to put scientific findings into practice in our everyday lives.

We need help implementing new happiness habits—and we can't just help

ourselves. In fact, when it comes to improving our collective happiness levels, self-help rarely works. Outside the structure and social support of a clinical trial or classroom, these self-help recommendations are surprisingly hard to implement on our own. Depending on the activity, we either *can't* or *won't* do them solo—and there are three big reasons why.

The first and most important reason is summed up best by Sonja Lyubomirsky, who laments, "Why do many of the most powerful happiness activities sound so . . . well, hokey?"[3] Lyubomirsky earned a million-dollar research grant from the National Institute of Mental Health to test a dozen different happiness activities—and she discovered that despite their incontrovertible effectiveness, many people resist even trying them. The most common complaint, according to Lyubomirsky? Happiness activities sound "corny," "sentimental," or Pollyannaish.[4]

"Such reactions are authentic, and I can't dispute them," Lyubomirsky admits.[5] We instinctively resist activities that feel forced and inauthentic, and many people are deeply suspicious of unadulterated feel-goodness. Shouldn't expressions of gratitude be spontaneous, not scheduled? Isn't it naive to constantly look for silver linings? What if I just plain don't *feel* like making a gesture of kindness today? When it comes to doing good and feeling good, we seem to think it's more "real" if we wait for inspiration to strike, rather than committing to doing it whether we "feel like it" or not. On top of that, there's just plain suspicion and skepticism of these unabashedly positive activities. There's an undeniable tendency toward irony, cynicism, and detachment in popular culture today, and throwing ourselves into happiness activities just doesn't fit that emotional climate.

Positive psychologist Martin Seligman explains that "the pervasive belief that happiness is inauthentic is a profound obstacle" to putting positive psychology into action.[6] Science just doesn't have a chance against our instinctive, visceral reactions—and, unfortunately, the best advice that positive psychologists have to offer seems to push all our cynical, skeptical buttons. For many people, happiness activities will need to be embedded in a more instinctively appealing—and less overtly do-good, feel-good—package.

The second obstacle to practicing simple happiness activities on our own is what I call the "self-help paradox." Self-help is typically a personal, private activity. When it comes to some activities—overcoming fears, identifying career goals, coping with chronic pain, starting a fitness routine—there's certainly reason to believe that self-help can work. But when it comes to everyday happiness, there's just no way personal, private activity can work—because, according to most scientific findings, there are almost no good ways to be happy alone for long.

As the author Eric Weiner, who has studied worldwide happiness trends, reports: "The self-help industrial complex hasn't helped. By telling us that happiness lives inside us, it's turned us inward just when we should be looking outward . . . to other people, to community and to the kind of human bonds that so clearly are the sources of our happiness."[7] Weiner makes an excellent point here: self-help isn't typically *social*, but so many happiness activities are meant to be. Moreover, positive psychology has shown that for any activity to feel truly *meaningful*, it needs to be attached to a much bigger project or community—and self-help just doesn't usually unfold collectively, particularly when self-help advice comes in the form of books.

Approaching happiness as a self-help process runs counter to virtually every positive-psychology finding ever published. Even if we can get ourselves past the hokiness problem, thinking of happiness as a self-help process will doom us to failure. Ideally, happiness needs to be approached as a *collective* process. Happiness activities need to be done with friends, family, neighbors, strangers, coworkers, and all the other people who make up the social fabric of our lives.

Finally, there's a self-help problem that isn't unique to the science of happiness: it's easier to change minds than to change behaviors. As Harvard professor of psychology Tal Ben-Shahar explains, we're often more willing to learn something new than we are to actively adapt our lives. "Making the transition from theory to practice is difficult: changing deeply rooted habits of thinking, transforming ourselves and our world, requires a great deal of effort," he writes. "People often abandon theories when they discover how difficult they are to put into practice."[8] Either we never try or we get bored or frustrated quickly.

Toward the end of his best-selling self-help book *Happier*, Ben-Shahar makes one last effort to convince people to make practical use of what they've read: "There is one easy step to *un*happiness—doing nothing." But unfortunately, that's exactly what most of us do after we read a book or magazine article about happiness: absolutely nothing. The written word is a powerful way to communicate knowledge—but it's not necessarily the most effective way to motivate people. We simply can't self-help our way out of the depression epidemic. Alongside platforms for communicating the science of happiness, we need platforms for *engaging* people in scientifically proven happiness activities.

And that's where ideas like sidewalk compliments, cemetery poker, and stationary dancing come in.

Shout compliments at strangers, play poker in a cemetery, and dance without moving your feet are all instructions from large-scale public games that I've designed specifically with the intention of creating opportunities for as many people as possible to participate in happiness activities they wouldn't ordinarily try.

These "crowd games"—meant to be played in very large, and usually face-to-face, groups—are called Cruel 2 B Kind, Tombstone Hold 'Em, and Top Secret Dance-Off. And they're all perfect examples of a new design practice called "happiness hacking."

The Invention of Happiness Hacking

The term "hacking" has its origins in the 1950s, when MIT students defined it as "creatively tinkering with technology."[9]

Back then, it was primarily radios that hackers were playing with, and it was a social activity: they would proudly show off their best hacks to anyone who would pay attention. Today, we most often think of hacking in the context of computing. You might associate the term "hacking" with malicious or illegal computer activity, but in the tech community it more commonly refers to clever, creative programming—especially if it takes a smart shortcut to accomplish something otherwise challenging. And as with the original

MIT hacks, there's still a tradition of showing off and freely sharing successful hacks.

Recently, especially in Silicon Valley circles, "hacking" has been used more broadly to talk about a kind of creative, hands-on problem solving that usually, but not always, involves computers. A good example of this phenomenon is a movement called "life hacking." Life hackers look for simple tips and tricks to improve productivity in everyday life—such as adopting the "ten/two rule." The ten/two rule means you work for ten minutes, and then let yourself do something fun and unproductive for two minutes—checking e-mail, getting a snack, browsing headlines. The theory is that it's easy to commit your attention to work for just ten minutes at a time, and as a result you'll get fifty good working minutes out of every hour. For many people, that's a huge boost in productivity. To make it easy to adopt this habit, life hackers have created desktop and mobile phone applications that buzz alternately every ten and two minutes to keep you on track.

Life hacking positions itself in direct contrast to self-help; it's meant to be a more collective way of working out solutions and testing them out together. As Merlin Mann, one of the leading life hackers, explains, "Self-help books tend to be about lofty ideas, whereas life hacks are about getting things done and solving life's problems with modest solutions."[10] Any good hack—whether it's a computer hack or a life hack—should be free to adopt and extremely *lightweight*—meaning easy and inexpensive to implement—without any special equipment or expertise.

It was in this spirit that I coined the term "happiness hacking" several years ago.[11]

Happiness hacking is the experimental design practice of translating *positive-psychology research* findings into *game mechanics*. It's a way to make happiness activities feel significantly less hokey, and to put them in a bigger social context. Game mechanics also allow you to escalate the difficulty of happiness activities and inject them with novelty, so they stay challenging and fresh.

When I design games today, I always embed at least one proven happiness

activity into the game mechanics—and sometimes I invent games based entirely on a handful of new research findings. It's my way of enacting the tenth fix for reality:

FIX #10: HAPPINESS HACKS

Compared with games, reality is hard to swallow. Games make it easier to take good advice and try out happier habits.

HAPPINESS HACK #1: UNLOCKING THE KINDNESS OF STRANGERS

The two most frequently recommended happiness activities across the scientific literature are to express gratitude and practice acts of kindness. Recent research has shown that we don't even have to know someone to experience the benefits of thanking and being nice to them. Even fleeting acts of gratitude and kindness toward strangers can have a profound impact on our happiness. And positive gestures from strangers can make a big difference in how rich and satisfying our everyday lives feel.

Sociologists call the positive relationships we have with strangers "transitory public sociality." We experience it in all kinds of public places: sidewalks, parks, trains, restaurants, stadiums, and coffee shops, for example. These transitory social interactions, when they happen, are usually brief and anonymous: we catch another's eye, we smile, we make room for someone else, we pick up something someone has dropped, we go on our way. But these brief encounters, taken cumulatively, have an aggregate impact on our mood over time.

Researchers have shown that sharing the same space for even just a few minutes a day with kind and friendly strangers makes us more optimistic, improves our self-esteem, makes us feel safer and more connected to our

environment, and generally helps us enjoy our lives more.[12] And if we return the favor, we benefit as well: when we give to others, or act cooperatively, the reward centers of the brain light up.[13]

But strangers aren't always inclined to be friendly to each other—and some researchers believe our shared spaces are becoming less friendly over time.

Dacher Keltner has devised a simple way to test this theory: a mathematical method for measuring the social well-being of any shared environment. It's called the "*jen* ratio," from the ancient Chinese word for human kindness. It compares the total positive interactions between strangers to the total negative interactions, in a given period of time and in a given place.[14] The higher the ratio, the better the social well-being of the space and the happier you're likely to feel after spending time in it. The lower the ratio, the poorer the social well-being, and the unhappier you'll be if you spend too much time there.

To measure the jen ratio of a space, you simply watch it very closely for a fixed period of time—say, one hour. You count up all the positive and negative micro-interactions between strangers, keeping track of two different totals: how many times people smile or act kindly toward each other, and how many times people act unfriendly, rude, or openly uninterested. All the positive microinteractions—such as big smiles, a hearty thank-you, a door being held open, a concerned question—get tallied on the left side of the ratio. All the negative microinteractions—a sarcastic comment, an eye roll, an unexcused bump, someone cursing under their breath—get tallied on the right side.

The jen ratio is a simple but powerful way to predict whether being in a particular place will make us happier or unhappier. When Keltner surveyed several years' worth of recent research on social well-being and social spaces, he concluded, "Signs of a loss of *jen* in the United States are incontrovertible . . . with a jen ratio trending toward zero."[15]

So how can we raise the jen ratio of everyday shared spaces? The solution is obvious, if hard to enact: we need to convince large numbers of people to do things like smile more, be more welcoming, express more gratitude, or pay more compliments. Positive psychologists, of course, have already given us

this recommendation—but, as Lyubomirsky's research shows, such recommendations rarely inspire direct individual action. Who wouldn't feel daunted by the challenge of trying to increase the jen ratio of a big public space singlehandedly? More likely, it would take a crowd, and not a single person, to effectively bump up the jen ratio. But there simply aren't any well-established social traditions for going out and expressing gratitude or being kind to strangers together.

As a game designer, it is clear to me that we can tackle these problems by making this behavior more challenging and social. All it needs are a few arbitrary limitations, some multiplayer obstacles, and a feedback system in order to turn unlocking the kindness of strangers into a game.

So what exactly would a kindness game look like? And who would play it? These are questions I asked myself a few years ago, and, together with my good friend and fellow game developer Persuasive Games cofounder Ian Bogost, I decided to invent a game with the core mechanism of performing acts of kindness on strangers—as *sneakily* and *stealthily* as possible.

It would work just like the popular college campus game Assassins, in which players are assigned targets via e-mail, and then proceed to stalk each other across campus for days or even weeks to eliminate their targets with water guns and other toy weapons. But in our version, the game would be shorter (an hour or two) and confined to a much smaller space (a few city blocks, a park, or a large public plaza). And players wouldn't kill each other with toy weapons—they'd kill each other with kindness. Most importantly, they wouldn't be given specific targets, so anyone nearby was fair game for a thank-you or a compliment. And instead of being eliminated from the game when "killed," players would join forces and cooperate with each other to keep performing bigger and more spectacular acts of kindness.

We called it Cruel 2 B Kind, or C2BK for short, after the famous line from Shakespeare's tragedy *Hamlet*. We debuted it in 2006 in San Francisco and New York City; it's since been played everywhere from Detroit, Michigan, and Johannesburg, South Africa, to Stockholm, Sweden, and Sydney, Australia. Here's how it works:

Cruel 2 B Kind is a game of benevolent assassination. At the beginning of the game, you are assigned three secret weapons via e-mail or text message. To onlookers, these weapons will appear like random acts of kindness. But to other players, the friendly gestures are deadly maneuvers that will bring them to their knees.

Some players will be killed by a compliment. Others will be slain by a smile. You and your partner might be taken down by a happy offer to help.

You can attempt to kill anyone else who is playing the game. However, you will have no idea who else is playing the game. You will be given no information about your targets. No names, no photos—nothing but the guarantee that they will remain within the game boundaries during the designated playing time. *Anyone* you encounter could be your target. The only way to find out is to attack them with your secret weapon.

Watch out: the hunter is also the hunted. Other players have been assigned the same secret weapons, and they're coming to get you. Anything out of the ordinary you do to assassinate *your* targets may reveal your own secret identity to the other players who want you dead. So be cool when you attack. You don't want to alarm innocent bystanders . . . or give away your secret identity.

In many cases, you and another player will spot and attempt to kill each other at the same time! For this reason, the weapons are assigned powers according to the classic rock-paper-scissors model: a hearty welcome beats a thank-you, for example, or a killer compliment beats a wink and a smile. And if both players deploy the same weapon at the same time? It's a standoff—you turn and run in the opposite direction, and both players must wait thirty seconds before attacking again. As

targets are successfully assassinated, the dead players join forces with their killers to continue stalking the surviving players. The teams grow bigger and bigger until two final mobs of benevolent assassins descend upon each other for a spectacular, climactic kill.

Will innocents be caught in the cross fire? Oh, yes. But when your secret weapon is a random act of kindness, it's only cruel to be kind to other players . . .

A team of C2BK players in London.
(Alex Simmons for the Hide & Seek Festival, 2008)

In addition to this basic rule set, we created a database of possible weapons, and invited players to suggest their own. For example:

- Welcome your targets to beautiful [your neighborhood or city].
- Tell your targets, "You look gorgeous today!"
- Point out something amazing to your targets, such as, "Isn't that an amazing bird!"
- Praise your targets' shoes.
- Offer to help your targets with something specific.

- Thank your targets for something they're doing right now.
- Express "mind-boggling" admiration of your targets.
- Wink and smile at your targets.
- Volunteer to answer any questions your targets have about something specific nearby.

Besides swapping kind gestures for toy weapons, the two most important design decisions that we made were to shrink the window of play and to obscure the number and identity of players. In a regular game of Assassins, the game is too spread out physically and time-wise to have a significant impact on the local environment. By reducing the field and length of play, we "concentrated" the game to increase its impact and intensity. And in a traditional game of Assassins, players know exactly who they're targeting. Bystanders *do* occasionally get caught up in the cross fire, but it's always an accident, and it's usually not fun for the victim. (No one wants to be unexpectedly splattered by a water gun if they're not participating in a game!) In C2BK, however, we wanted bystanders to get hit—every positive microinteraction would increase the jen ratio, regardless of whether it improved the player's score. In fact, the higher percentage of "misfires" (i.e. toward nonplayers), the better.

To be fair, being accidentally "attacked" by a player is somewhat startling but also potentially enjoyable. In a best-case scenario, the "victims" of play feel genuinely welcome or complimented or appreciated. At the start of the game, when players are timid and groups are small, this tends to be the case. Later, as the players get bolder and teams get larger, strangers are more likely to be clued in to the unusual nature of the activity and provoked to wonder why everyone is making such showy efforts of gratitude and kindness. This is one of the intended effects of the game—to reveal if friendly gestures are considered out of place, and to provoke people to wonder why exactly that is. Of course, by the end of a game, being complimented by a horde of twenty or more adrenaline-pumping players is clearly no everyday act of transitory public sociality. No one is likely to mistake *that* for an ordinary act of kindness. But the spectacle works toward a different positive end: it adds a spark of novelty and curiosity to the environment. It's bracing, but benevolent—and

our goal in including this level of spectacle was to jolt people out of their social bubbles.

Years of low jen ratios may make some bystanders more cynical and jaded than others—and for them, getting welcomed, serenaded, thanked, or complimented by a single stranger or a crowd of strangers might not initially be a positive experience. That's why we were careful to playtest the various "weapons," to whittle the list down to the most consistently positive-reaction-provoking gestures. I've also observed—and filmed—many C2BK games in action, specifically looking for signs that the majority of bystanders benefit, in addition to the players. To date, my studies have shown that the visible positive reactions—smiles, wide-eyed curiosity and amazement, cheerful replies—far outnumber the blank stares or negative reactions.

Ultimately, though, it's the players who benefit most from the game. That's because when you play C2BK, the basic happiness activities of expressing gratitude and practicing random acts of kindness are made more engaging.

First of all, the C2BK game makes the kindness activities more interesting. There are two obstacles in the way of your performing them: you don't know who to attack, and you're trying to sneak past and avoid other players. Much of the game is spent scouring the environment for targets while trying to keep a low profile. You can't help but wonder about everyone you see: Are they playing the game, too? Strangers become potential targets and allies, and the only way to find out if they share your secret is to interact positively with them.

C2BK also produces adrenaline. Paying a compliment becomes an act of courage: you have to work up your nerve to overcome the social norms of ignoring strangers, and you have to do it as quickly as possible, because every second that passes is a second that another player could be targeting you. C2BK also has more pronounced fiero moments. Players and teams let out big hollers and cheers when they've made a successful kill, and the fiero moment is intensified by the number of misfires you've made on the way. My rough estimate from observing several games is that C2BK participants attack on average five times as many nonplayers as players.

The game also has more novelty than ordinary acts of kindness. It encourages you to think about being nice to strangers in different environments—

and the possibilities are endless. It's most frequently played in downtown settings, but Cruel 2 B Kind isn't just a game for sidewalks and parks—any public or shared space could benefit from having its jen ratio raised. I've received reports of C2BK games played in settings as diverse as high-rise office buildings, arts festivals, libraries, shopping malls, convention centers, apartment complexes, college dorms, public train systems, and even the beach.

Finally, C2BK gives you collaborators in your happiness activity. You can gather up your friends to be on a team with you, and as you start getting folded into larger and larger groups—the biggest C2BK game I've participated in had more than two hundred players in a three-by-three city-block radius—you build up a sense of being on a collective mission to kill with kindness. It's the kind of emotionally charged experience that can forever change how you see your own kindness capabilities. Even if you play C2BK formally only once or twice, you may find yourself continuing to think of friendly gestures as secret weapons you can deploy anytime, anywhere. (This is exactly what players report to me weeks and months after their first time playing the game.) The game gives you a different view into two happiness activities, charging them with more excitement, fiero, and social energy.

CRUEL 2 B KIND, like many happiness hacks, isn't a product. There's no software to download, no license to buy, no fee to pay. It's meant to be a solution to a problem—the problem of how to increase the jen ratio of a shared space—and it can be adopted and adapted by anyone, anywhere. It was cheap to invent—Ian Bogost and I worked for free, and the whole project probably cost us less than five hundred dollars in expenses to playtest and launch.

The game can be played using any kind of mobile communications technology: text messaging, mobile e-mail, and Twitter are the most popular platforms for C2BK.

To help spread the hack, the Cruel 2 B Kind website includes a few essential tools. There's a six-minute video showing the highlights of a game from start to finish, to help potential players get up to speed quickly. There's also a

one-page "cheat sheet" with rules and frequently asked questions that players can print out and bring to the game.

It's hard to keep track of all the C2BK games that happen—game organizers don't have to get our permission to run a game, so I rely on voluntary reports. Three years after launching the game, I still hear from new game organizers roughly every month. At the very least, C2BK has been played in more than fifty different cities, in ten countries, on four continents.

Recently, I received news of perhaps the most interesting C2BK setting yet: Summer Darkness, one of the biggest gothic festivals in Europe. The three game organizers wrote me an e-mail from the festival's home city, Utrecht, in the Netherlands, explaining, "Ultimate goal: get the Goths (coming from all over Europe), and 'civilians' (non-Goths) to play together in the streets."

Now, if any group would find straightforward happiness activities hokey, I'm pretty sure it would be goths. The gothic subculture, of course, is known for embracing dark, mysterious, and morbid imagery. There's a kind of loneliness and alienation deeply entrenched in gothic stories, music, and style. And Summer Darkness is officially billed as a "dark underground lifestyle" festival, so it might be the last place you'd expect to see people throwing themselves into extroverted interaction with strangers, let alone cheerful expressions of gratitude and random acts of kindness.

For Cruel 2 B Kind to be an appealing activity to this community stands as excellent proof, I think, that even the most unabashedly do-good activity can be transformed into mischievous fun. It's proof that happiness hacking works. You really can turn positive-psychology advice about what's "good for you" into something that you really *want* to do.

HAPPINESS HACK #2: PLAYING OUR RESPECTS

Tombstone Hold 'Em is a variation of Texas Hold 'Em poker designed to be played in cemeteries. It is also, without a doubt, the most controversial game I've ever designed.

To say that some people find the idea of playing games in a real-world cemetery inappropriate would be putting it mildly. In the United States in particular, we have a culture of grieving as quietly, as privately, and as solemnly as possible. Cemeteries—despite having been popular as public parks and recreation spaces in the nineteenth and early twentieth centuries—today are largely single-use memorial spaces. They're meant to be briefly occupied by mourners first and foremost. Some older or more scenic cemeteries may draw other visitors, but they generally move through them as inconspicuously as possible.

But I've never been prouder of a game design, and for one reason: players widely report being able to think about death and lost loved ones in a more positive way after playing Tombstone Hold 'Em. And that's the point of the game. It's a happiness hack meant to create more social, and more enjoyable, ways of remembering death.

Thinking about death is one of the most highly recommended happiness activities, but it's also one of the most difficult to convince ourselves to undertake. We're accustomed to pushing thoughts of death out of our minds, not cultivating them. Tombstone Hold 'Em is meant to make remembering death easier and more rewarding, by taking advantage of the largely underutilized social and recreational potential of cemeteries.

The central activity of Tombstone Hold 'Em poker is learning how to "see" a playing card in any tombstone, based on its shape (the suit) and the names and date of death (the face value). Once you can read stones as cards, you can spot "hands" all around you. The game works in any cemetery, as long as there are clearly marked tombstones. Here's how it plays out:

The key to understanding Tombstone Hold 'Em is that there are only four shapes you get on top of a tombstone. Pointy equals spades, statue on top equals clubs, rounded equals hearts, flat equals diamonds. That's how you tell the suit.

Now take the last digit in the year of death. That's your face value. Died 1905—that's a five. Died 1931—the one is the ace.

But two names on the stone? Ignore the dates—that's a jack. Three names is a queen. Four or more names is kings.

Now maybe you have to clear away some leaves or dirt or litter in order to read the cards. That's good—it helps keep those old stones taken care of. Just be gentle with 'em.

Now, for a hand. You play it like regular Texas Hold 'Em, but in reverse. First, lay out the whole "flop" upfront. Five regular playing cards. Now everyone antes up, and then each pair (you've got to have a partner to play) has three minutes to find their two best hold cards.

You can pick any two cards you want from anywhere in the cemetery—but you have to use the stones, not regular playing cards this time. The trick is you have to be able to *touch* both tombstones and each other at the same time. So maybe I've got a hand on a ten of hearts and the other on my buddy's toe, while he's stretched out to touch another heart for the flush. If we can't make the reach, we can't claim the cards.

So find any pair you like and put a pair of poker chips on 'em to claim 'em. Now no other pairs can pick your two stones for their own pocket pair.

Two players show their best hand during a Tombstone Hold 'Em game in the historic Congressional Cemetery in Washington, D.C.
(Kiyash Monsef, 2005)

> All this has to happen fast, because after three minutes whoever's got the working watch yells out, "Last call!" and everyone runs hell for leather back to the flop and says what they found. Only the best hand has to prove it, and winner takes all the antes. In the case of ties, first back to the flop is the winner.
>
> One more thing: no betting or bluffing in traditional Tombstone Hold 'Em. Only way to win is to earn it. So go out there with your partner and make sure you find the best pair.[16]

Tombstone Hold 'Em allows players to actually get to know the people at rest in the cemetery. You read the stones, you learn the names, and you start to wonder about their stories—because every time you pick a pocket pair, you're recruiting two dearly deceased as allies in the hand. Playing the game in a perfectly manicured cemetery is good, but playing it in a cemetery that could use a little loving care is better—it's more challenging, and more rewarding. As you clear away clutter from the stones to make them legible again, you're not just playing in the cemetery—you're taking care of it.

The game is meant to be played by at least four people, and ideally in larger groups—the larger the group, the more enlivened the cemetery feels. I've organized large-scale Tombstone Hold 'Em games in historic cemeteries in Kansas City, Atlanta, New York City, Los Angeles, and San Francisco, for crowds ranging between twenty and two hundred. With a group that big, you've got a dozen or more "flops" going at the same time, spread out around the cemetery, on various benches, tree stumps, or mausoleum steps. Whenever I've organized a larger game, I've done so with the official permission and assistance of the cemeteries. But I've also played much smaller, unofficial games everywhere from Austin to Helsinki to Barcelona to Vancouver. If it's a small group—say, four, six, or even eight players—it doesn't raise too many eyebrows, especially if you're sure to play well out of the way of anyone who might be visiting the cemetery for more traditional purposes.

But before I get too much further dissecting the experience of playing Tombstone Hold 'Em, perhaps I should explain how I came to be designing

a crowd game for cemeteries—and how happiness research convinced me to take on such an unusual project.

In 2005, I was working as a lead designer for a game company called 42 Entertainment. We accepted a commission to develop an alternate reality campaign for the Western-themed video game *Gun*, developed by Neversoft and published by Activision. The goal of the alternate reality campaign was to give gamers the chance to directly experience the historical world of *Gun*, the American Old West of the 1880s. The centerpiece of the alternate reality campaign was an online poker platform, styled in a Western theme. Gamers were invited to compete in online Texas Hold 'Em tournaments set in the past, competing at the same table with historical characters from the 1880s. It was a unique combination of historical role playing and card playing.

Alternate reality games usually have a real-world component, and since *Gun* featured real-world characters who'd died in the Old West, we came up with the idea of using real cemeteries as a site for some kind of live-action experience. Because of my expertise in running reality-based games, I was put in charge of figuring out what the live cemetery events would be.

On one hand, I was excited by the concept. In a world where video gamers are much maligned for being desensitized to violence, it struck me as a particularly provocative idea to send gamers to the *real-world graves* of characters they had killed in *Gun*. But I also felt some trepidation, hitting up against the cultural norms involving cemeteries. I *really* didn't want to organize some kind of rowdy, unauthorized "flash mob," so I started researching historic cemeteries and brainstorming what kinds of things gamers could do in them.

One of the first things I discovered was that cemeteries in the United States were absolutely *desperate* to convince people to spend more time in them. According to cemetery industry statistics, the average grave receives just *two* visits in its lifetime—*total*, by *any* friend or family member—after the initial flurry of visits that immediately follows the burial.[17] We think of cemeteries as spaces for mourning, but the truth is, mourners do not regularly return. Meanwhile, others are generally discouraged by social norms from spending significant time in the space—it's considered either unseemly or morbid.

As a result, cemeteries are for the most part empty. And lack of participation

in cemetery spaces has become a huge problem from an industry standpoint (cemeteries are running out of money), a community standpoint (the less visited a cemetery is, the more likely it is to be poorly maintained and vandalized), and, perhaps most of all, from a happiness standpoint (according to research, the less time we spend in cemeteries, the more likely we are to suffer from fear and anxiety about death).

I was first tipped off to these problems by a *New Yorker* article about the decline of American cemeteries, which was published while I was in the midst of my research. In the article, Tad Friend documents how Americans today spend less time in cemeteries than ever before, despite the vast expanses of green space they take up and the escalating costs of maintaining them. "Who are cemeteries for? The living or the dead?" he asks. We've apparently convinced ourselves they're for the dead, since we don't visit them. But that's ridiculous, as Tad Friends argues: "They're for the living; the dead can't enjoy them. The trick for cemeterians is to get the living to come to them." He documents a range of fledgling efforts on the part of cemeteries nationwide to become more relevant to the living. There are, for example, movies projected at night on the sides of mausoleums in Hollywood, 5K graveyard races in Kansas City, and dog-walking clubs in historic Washington, D.C., cemeteries.[18]

As I researched the subject further, I discovered that many cemeteries were fighting for their very survival, and largely as a result of the American desire to keep the reality of death as far removed from our daily lives as possible. For decades private cemeteries have been quietly sold to accommodate new highways, schools, and condominiums; the graves are typically relocated to more remote areas. Meanwhile, many public and historic cemeteries receive insufficient funds to maintain the grounds properly; with such low visitation rates, they have a hard time documenting their value to the community. And abandoned cemeteries once belonging to now defunct churches are being adopted by local community groups in an effort to repair them and preserve their historical value.[19]

People who care about and run cemeteries make many good arguments in favor of protecting them: they are a unique repository of historical data, they have significant architectural value, and, not least of all, there is the ethical

imperative to honor contracts to families who have buried their loved ones with the expectation that they will be cared for in perpetuity.

All of these are worthy reasons to enliven cemetery spaces today—but what really convinced me was the happiness research.

In his report on global happiness trends, Eric Weiner writes that death is "a subject that, oddly, comes up an awful lot in my search for happiness. Maybe we can't really be happy without first coming to terms with our mortality."[20] It's a strange idea, but it's not a new one. In *The Happiness Myth,* happiness historian Jennifer Michael Hecht devotes an entire chapter to "the age-old advice to remember death, to keep it in the forefront of our minds for the sake of bettering the life we lead now."[21] She traces the idea all the way back to Plato, who advised students to "practice regular meditation upon death," and to Buddha, who said, "Of all mindfulness meditations, that on death is supreme." Even Epicurus, the ancient Greek philosopher best known for encouraging followers to seek simple pleasures, put death at the center of his vision of happiness, arguing that it is only when we shake free our fear of death that we can truly enjoy life.

According to Hecht, since ancient times meditations on death have served the same purpose: to replace fear and anxiety with a kind of calm, mellow gratitude for the life that we're given. And today, these traditions have the backing of contemporary science. Positive psychologists have found that grappling with the reality of death forces a kind of mental shift that helps us savor the present and focus our attention on the intrinsic goals that matter most to us. Hecht has coined a term for this realignment of priority and attention: posttraumatic bliss. "There are feelings in this life—good and bad—that cannot be conquered by intellect or force of will," she writes. "Almost dying can realign you in a way that is the positive incarnation of trauma: posttraumatic bliss."[22]

Researchers have documented the phenomenon of posttraumatic bliss among patients confronting a terminal medical diagnosis. Something seems to click in their minds, empowering them to enjoy their lives more. It's not just that they've realized how precious life is; there seems to be some kind of significant mental clearing that occurs along with a new ability to focus on

positive goals. In *Happier*, Tal Ben-Shahar quotes Irvin D. Yalom, a psychotherapist who often works with dying patients: "They are able to trivialize the trivial, to assume a sense of control, to stop doing things they do not wish to do, to communicate more openly with families and close friends, and to live entirely in the present rather than in the future or the past."[23] This rare and intense positive focus on getting the most out of life is hard to come by in our ordinary lives, Ben-Shahar notes—especially when we spend so much time collectively trying to avoid thinking about death.

Can we learn to savor life and achieve that intensity of positive focus without the trauma of a terminal diagnosis or a near-death experience? That seems to be the idea behind classical and religious advice, and today positive psychologists like Ben-Shahar recommend activities such as imagining ourselves on our deathbeds as a way to try to provoke this positive clarity.

But as a happiness activity, solitary deathbed reflection leaves a lot to be desired. It's simply not something most of us are inclined to do—or if we are, we're not likely to take it seriously or do it for very long. We can't just tell ourselves to remember death—the ancient philosophers, Hecht notes, insisted that "it takes active meditations and gestures."[24]

Moreover, it's hard to force ourselves to grasp the reality of our own individual mortality. It's easier to acknowledge the universality of death—and that's where cemeteries come in. Cemeteries present us with vivid, extreme-scale, irrefutable historical evidence of the one thing that connects us all, the one thing that makes it possible to enjoy life to the fullest—if only we felt inclined to spend more time in them.

At this point in my research, I was convinced that spending more time in cemeteries was a worthy social goal—and that a graveyard game could do a lot more than bring a historical video game to life. The *Gun* project was the perfect opportunity for a happiness hack. And the key to making this happiness hack work would be to generate the kind of positive emotions we typically associate with crowd games—excitement, interest, curiosity, social connection—and simply unleash it in the physical context of a cemetery.

Once I started playtesting in cemeteries, the design pieces fell quickly into place. I knew I would need a focused activity that, in some respect, had

nothing to do with remembering death—that had to be the side effect, not the purpose, of the game. And since Texas Hold 'Em poker was a larger theme for the alternate reality campaign, it made perfect sense to bring the familiar game to the cemeteries.

But the poker needed to be site-specific and really needed to use the natural affordances of a cemetery—otherwise, you'd just play the game somewhere else, defeating the entire purpose. And that's where the idea of using stones as playing cards came in. Tombstones are the single design feature that all cemeteries have in common, guaranteeing the game would be playable anywhere. And paying close attention to the content of the tombstones directly supported the goal of the happiness hack—each card you "decoded" meant literally staring death in the face, but in a way that wouldn't provoke fear or anxiety.

As for the other design choices, I made it a partner game because this seemed like a good way to ensure that it was not just social, but also cooperative. Cooperation always provokes positive emotion and meaning in games, especially if a physical connection is involved. Meanwhile, touch is one of the fastest ways to build social bonds—holding hands, touching someone's back, and patting a shoulder all release the oxytocin chemical that makes us like and trust each other. But, as Dacher Keltner's positive-emotion research has shown, "We live in a touch-deprived culture."[25] To put it another way, as Michelangelo said, "to touch is to give life"—and I couldn't think of a better way to enliven a cemetery than to unleash a flood of oxytocin in the crowd.[26]

When a game is in motion, there's an air of happy participation that simply isn't the norm for cemeteries. It's a distinct break from the typical atmosphere, usually one of quiet, solitary reflection or collective mourning. At the same time, small pockets of conversation often break out, among friends as well as strangers—people sharing small pieces of their own experiences with mourning and loss. This has unfolded at every Tombstone Hold 'Em game I've been to—it's almost impossible not to, given the setting. In this way, the game perfectly serves its purpose: it simultaneously activates positive emotions and social bonds while putting us in the perfect environment to get our recommended daily reminder that we are all dust, and to dust we shall return.

Which brings us back to the potential controversy. Tombstone Hold 'Em

was featured in a number of news articles, and some online readers commented that the game seemed "disrespectful," "insensitive," or even "obscene." Which raises the question: Is it appropriate to play games in a cemetery? Based on my direct experiences, absolutely. At more than a dozen trials I've organized of Tombstone Hold 'Em, participants have overwhelmingly agreed that this particular game *feels right* in the space—especially when the net result is that the tombstones receive more attention from the living and are better taken care of as a result.

Perhaps more than any other project I've worked on, Tombstone Hold 'Em has demonstrated one of the most vital powers of gameplay: it gives us explicit permission to do things differently. We are accustomed to being asked to behave and think unconventionally in a game. We're used to being creative and playing outside of social norms when we're inside the socially safe "magic circle" of a game. And the more people who come together to play an unconventional game like Tombstone Hold 'Em, the safer it feels. A crowd carries the social authority to redefine norms.

Does it really work as a happiness hack? I've played Tombstone Hold 'Em with hundreds of people and spoken with nearly every one of them about it immediately afterward. (The games are usually followed by social gatherings in restaurants or bars, a way to decompress after what can be an intense, emotional experience.) The most common reaction is that players felt "more comfortable" being in the cemetery after playing. Other words most commonly used to describe the experience were "strangely happy" and "relaxed," as well as "grateful" and "connected" to the people at rest. I've even talked to visitors at the cemeteries who spotted some of our players in the distance and asked me about the game; just once did a visitor express dismay. Most often, I heard a variation of the following sentiment: that it's nice to see a loved one's final resting place not lonely and empty, but full of people running, smiling, laughing, and having fun together.

Since I first shared the rules online, the game has spread mostly by word of mouth—like most good hacks—and I periodically hear about Tombstone Hold 'Em games popping up in cemeteries around the world. It's the best outcome possible for any happiness hack: a solution that's been tested, proven,

and shared, and now continues to be passed around to those who can benefit from it. Today, Tombstone Hold 'Em lives on as a viral happiness solution—it's free to adopt or adapt, and no products or special supplies or technology is required. All you need are a set of regular playing cards, something to use as poker chips (some people use coins or colored glass stones), and a way to invite friends or strangers to play their respects with you.

HAPPINESS HACK #3: ACTIVATING THE DANCE SECRET

"As a happiness lesson, nothing could be more straightforward: if you get a chance to dance in a circle, get up out of your chair and do it."[27] That's Jennifer Michael Hecht's advice in *The Happiness Myth*, and with good reason. Dancing together has been used throughout human history as a reliable source of a special kind of euphoria, the *dancer's high*.

Dancer's high is what we feel when endorphins (from the physical movement) combine with oxytocin (from touch and synchronized movement) and the intense stimulation of our vagus nerve (what we feel when we "lose ourselves" in the rhythms of the music and are part of a crowd moving together). It's an expansive mixture of excitement, flow, and affection that is hard to experience any other way.[28]

But dancing in groups also makes many people feel embarrassed or awkward. Everything from self-consciousness to social anxiety to a general disdain for any kind of group participation can prevent us from joining or fully enjoying a dance.

To really dance your heart out in front of others, to not hold back at all, is a daunting proposition for many (although certainly not all) people. It requires letting go, and showing people a side of yourself—exuberant, unguarded—that you might ordinarily keep hidden. For some, revealing that side requires a lot of trust in the people around you. And, in fact, according to positive-psychology researchers, the necessity of trust is one of the reasons why dancing is such a powerful happiness activity.

When we dance, we're forced into an emotionally and socially vulnerable

state in which we have to hope and trust that others will embrace us, rather than judge us. At the same time, we're given the opportunity to embrace others and help them feel more comfortable dancing. In other words, dancing with others is a chance both to receive and to express our compassion, generosity, and humanity. As a result, Dacher Keltner writes, "Dance is the most reliable and quickest route to a mysterious feeling that has gone by many names over the generations: sympathy, agape, ecstasy, jen; here I'll call it trust. To dance is to trust."[29]

But first, we have to have both the *desire* to dance and the *nerve* to do it. Many of us are missing one or the other.

Some people, as a rule, just don't like "getting involved." And group dances in particular set off all kinds of hokiness alarms. It's no coincidence that one of the best-known group dances is actually called the "hokey pokey." If you're not in the mood for dancing, when a big group dance breaks out at a wedding or a street festival, for instance, being dragged into it can feel incredibly forced and inauthentic.

Others have the desire, but simply lose the nerve.

The more I kept hitting up against the same happiness advice—dance more, in large groups if possible—the more convinced I became that there had to be a way to make it easier for introverted types who were more likely to watch from the sidelines to participate, and to give people who are already willing to dance together more daily opportunities. After all, even people who are ready and willing to dance anytime, anyplace, don't get nearly enough opportunities. We simply don't have a lot of everyday venues for dancing together. I began to wonder: how could we all sneak a few minutes dancing together into our *everyday* lives, not just the occasional weekend?

My solution: take all the basic mechanics of a massively multiplayer online role-playing game, and swap in real-life *dance quests* and *dance-offs* for traditional role-playing quests and raids. I called it Top Secret Dance-Off, or TSDO for short, and I launched it as a stand-alone social network site dedicated to the adventure of dancing together.

ADVENTURERS WANTED. NO DANCING TALENT REQUIRED.

Welcome to Top Secret Dance-Off, an underground network of otherwise ordinary people seeking to activate the dance secret—an elusive power said to be hardwired into our brains, and requiring highly unusual dance experiences to unlock it.

Top Secret Dance-Off is an adventure you can undertake anywhere in the world. No dance skills or talent is required. In fact, you may find yourself rewarded more for awkward dancing than for a virtuoso performance. Activating the dance secret isn't about being a good dancer. It's about being a clever dancer, a brave dancer, and occasionally a stealthy dancer.

Adventures will involve undertaking a variety of challenging, top secret dance missions on video, sometimes in the privacy of your home, and sometimes in the most unlikely environments. You may play alone, or with your friends. Mask wearing or other disguises are required.

As you try to activate the elusive dance secret, you'll earn points by completing dance quests and participating in dance-offs. As you earn more points, you'll level up. The higher the level, the more dance secret you've activated.

For every quest you complete and every dance-off you enter, you'll also be earning choreopowers, such as style, courage, humor, and coordination. Your choreopowers reveal *your* personal strengths as a top secret dancer—and all choreopowers are awarded by other members of TSDO, in the comments on your videos.

Full activation of the dance secret occurs at level 100. How do you get there? Just complete twenty-one increasingly challenging quests and win at least a dozen dance-offs, and you'll be fully activated for life.

Dance Quest #1: Disguise yourself.

Your first mission is to disguise yourself. After all, this *is* top secret.

But we're not talking a full disguise. That would make dancing . . . difficult. So, to keep your TSDO identity a secret from the rest of the world, you must create a lightweight disguise that *covers at least part of your face*. It might be a mask, a scarf, modified sunglasses, face paint, a wig, or . . . ? It's your face. You decide how to hide it. But make sure you really like your disguise—because you'll need to don the exact same one for *all* future quests and dance-offs. Batman and Wonder Woman didn't make new suits every time they went out to save the world, did they? So pick something you like, and stash it somewhere safe—and secret. You'll be needing it.

Now: *Make a video* introducing yourself to the TSDO world. You must be 1) wearing your disguise and 2) dancing. Pick any song you like. BUT—and here's the tricky party—*keep your secret weapons in check* for now. That means *no moving your feet*. Dance, but don't move your feet. Like they're locked in cement. Got it?

Keep the video short—less than thirty seconds. Upload it to the TSDO site when you're ready to unleash your top secret dance identity and start earning your choreopowers.

Admittedly, this is not exactly dancing together, at least not in the traditional sense. Most of the dance quests and dance-offs involve dancing alone, then uploading a video to the Top Secret Dance-Off social network site. But the game serves two important purposes toward making it easier to dance together.

First, by providing a goal-oriented, feedback-rich, obstacle-intensive environment for dancing, it makes dancing more motivating, fun, and addictive. In other words, it increases a person's likelihood of dancing at all. Second, TSDO puts dancing, even dancing around your apartment alone, into a collective

social context. It still takes nerve to share your dancing with an online community—and it's a real opportunity to express compassion, generosity, and humanity when we cheer on other players in the comments. In other words, the game is a hack for group dancing—a way to dance together alone, and make people more likely to dance together for real, in the future.

The heart of the TSDO experience is the never-ending list of potential dance quests, each of which adds a unique, unnecessary obstacle to dancing. By putting an obstacle in your way, TSDO makes it much harder to be self-conscious about dancing: you're focused on completing the challenge, not necessarily on how you look. It also gives you permission to dance badly, by restricting "normal" ways of dancing. The first dance quest—to dance without moving your feet—is a perfect example of this design strategy in action: it automatically rules out pretty much any kind of traditional or obvious dancing. Excelling at stationary dancing requires silliness, creativity, or just plain enthusiasm—not necessarily grace, sexiness, strength, or whatever else we might associate with natural dance talent.

Other dance quests include missions like "Dance upside down," "Dance in a crosswalk," "Dance with a tree," and "Dance to whatever was your favorite song exactly seven years ago." In each case, successful dancing means creatively dealing with absurd limitations—including time limits, which are designed to make the quests easy to fit into your day. It's meant to be like brushing your teeth—a little dancing every day goes a long way.

Meanwhile, the dance-offs—in which players form teams and earn points for every team member who submits a dance—require players to synchronize their efforts, even if they are dancing alone. In one of the most popular dance-offs, for example, called "Steal my bad move," players invent a signature dance move and upload a video demonstrating it. Their team gets points for every player who successfully learns and repeats the same move in their own dance-off video.

What else makes the game work? Some of the supporting design choices I made for Top Secret Dance-Off were simply twists on very traditional strategies for getting people to dance. Masks, for example, have always been an important part of persuading people to let down their guard, and play and

perform. They free us from the constraints of who we think we're supposed to be and how we're supposed to behave. For people who don't see themselves as natural dancers, their TSDO disguise is meant to free them from that limiting self-identity.

A Top Secret Dance-Off player completes Dance Quest #1, dancing in disguise.
(Top Secret Dance-Off by Avant Game, 2009)

But the "top secret" theme isn't just about practical considerations like obscuring player identity. It was also a lightweight way to create a kind of superhero mythology around dancing together. Dancing in front of others, after all, is an act of courage. And it's a proven powerful force for good when you inspire others to dance. Treating players like top secret superheroes just for dancing is one way to playfully recognize the meaning that dancing holds for us, and the real individual strength required to do it.

Finally, perhaps one of the most effective design elements of Top Secret Dance-Off's design isn't even about dancing specifically—it's actually an adaption of Keltner's jen ratio to the online environment. I knew that in order for

TSDO to work, players would need to feel comfortable posting potentially embarrassing videos of themselves. But on most video-sharing sites, the comments section is not exactly the kindest or friendliest place on earth. Criticism, rather than support, is the general method of feedback there, and it's often personal, ugly, and mean-spirited. So I designed the comments feature of TSDO specifically to inspire players to leave positive feedback, or none at all.

Whenever you watch another player's dance video, you have the option to reward them with a plus-one of any choreopower you want. Some choreopowers are traditional dance qualities, such as beauty, coordination, and style. Others are less traditional: humor, sneakiness, imagination, and courage. The range of choreopowers allows players to develop a unique profile of dance ability and strengths, regardless of their "natural" dance talent (or lack thereof). Perhaps my favorite choreopower is exuberance, which can be awarded to anyone who is obviously joyous and carefree.

As a result, TSDO is an environment with an off-the-charts high jen ratio. It's a place where anyone can feel safe dancing together. Indeed, more than one player has professed in the TSDO chat room that their dance quest videos were the first time anyone has seen them dance publicly in years.

Top Secret Dance-Off is a more formal hack than Cruel 2 B Kind or Tombstone Hold 'Em. There's a single, central game site, and everyone plays as part of the same online community, leveling up in the same database. But it's still an incredibly lightweight solution, from a development perspective—I launched the game within a few days of starting to design it. It's built on top of the inexpensive service Ning, which lets anyone start their own social network, much the way YouTube enabled anyone to share videos online and Blogger enabled anyone to start their own blog. There aren't fancy graphics or Flash sequences, just good mission design and community support.

I created TSDO as a happiness hack for my own life, and I hoped to play it with a few dozen friends and family members. It wound up attracting a much larger group than I'd expected. The extended social network grew to include coworkers and colleagues, acquaintances and friends of friends—all

in all, about five hundred of us in total played the game together for eight weeks during its initial trial run in early 2009. (And based on its early success, a commercial version of TSDO is now in the works.)

Although TSDO can be played alone, from my observations TSDO dancing is usually at least a little bit social. Most players seem to recruit at least one partner in crime when they play, so they can film each other's dance quests and compete in the same dance-offs. And many players create group disguises for two, three, four, or even five people who plan to complete all the quests together as a single top secret unit.

Most important, TSDO helps players think of themselves as dancers—which seems to make them much more likely to dance together *in person*, when the opportunities arise. Though this isn't a scientific survey, all of my friends who have played TSDO, myself included, have found themselves dancing more often in a traditional group venue—at parties, at Bollywood dance clubs, even street festivals—long after they finished the game.

Like all of the best happiness hacks, you don't have to keep playing to maintain the benefits. A good game is *that* powerful—it can change the way you see yourself and what you're capable of forever.

WHETHER WE'RE KILLING each other with kindness, turning tombstones into full houses, or dancing in disguise, there's no way around it: sometimes we have to *sneak up* on our happiness.

Two hundred years ago, the British political philosopher John Stuart Mill suggested a subversive approach to self-help. It's an approach that has much in common with the growing community of happiness hackers. Mill argued that while happiness might be our primary goal, we can't pursue it directly. It's too tricky, too hard to pin down, too easy to scare off. So we have to set other, more concrete goals, and in the pursuit of those goals, we capture happiness as a kind of by-product. He called this approaching happiness "sideways, like a crab."[30] We can't let it know we're coming. We just kind of sneak up on it from the side.

That's exactly what happiness hacks are designed to help us do: approach

happiness sideways, and as a group. In fact, with crowd games, it might be more accurate to say that hacks let us *encircle* happiness—we're all sneaking up on it from different angles together. We play these crowd games because we enjoy them in the moment and because we crave the social connectivity of a multiplayer experience. But a few intense and memorable exposures to a happiness hack can shift our ways of thinking and acting in the long run, about things as diverse as kindness to strangers, dancing, and death. And if you get enough people to shift in one place, you really can change the larger culture.

The best part about happiness hacks is that it doesn't take a lot of technological know-how or sophisticated development to create one that works. It just takes a good understanding of how games motivate, reward, and connect us. With the creativity to invent some unnecessary obstacles and the courage to playtest them with as many people as possible, anyone can dream up and share new solutions to the happiness challenges of everyday life.

Alternate reality games of all kinds are designed to make us better: happier, more creative, and more emotionally resilient. When we are better in these ways, we are able to engage with the real world more wholeheartedly—to wake up each day with a stronger sense of purpose, optimism, community, and meaning in our lives.

But big crowd games, which are the subject of the next part of this book, can do more than make us better. They can help solve some of the most urgent challenges we face as the human species.

It turns out that our ability to make ourselves better as individuals—to dive into more satisfying work, to foster real hopes of success, to strengthen our social connections, to become a part of something bigger—also helps us work together, longer, on more complex and pressing problems. Games aren't just about improving our lives today—they can help us create a positive legacy for the future.

Reality Is Broken

Why Games Make Us Better and How They Can Change the World

JANE McGONIGAL

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