Reality Is Broken

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

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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.” 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.

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. 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
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.)

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.”

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!’” 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.” (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 game-like 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.

*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!*

—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.
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. 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.” 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.” 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 Four-square 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.