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Playful Heterotopias or Technologies of Control? Foucault, Governance, and Gamification

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In this chapter, I draw from Michel Foucault to frame self-tracking and gamification in terms of the governance of modern liberal nation-states where subjects willingly govern, regulate, and optimize themselves. I introduce the quantification of the self, showing how it is used in gamification movements and how it is leveraged to promote a care of the self, as well as further enrolling individuals in normalization projects. I argue that current gamification projects are not influenced by playful design (and much less a focus on fostering creativity and exploration), but take something entirely different from games: the feedback mechanisms such as leaderboards, damage meters, and point systems that allow users to manage risk as well as pinpoint "approved" routes toward mastery and self-improvement. I conclude with some cautionary thoughts about the difficulty uniting play with non-game governance projects, given that play inherently encourages players to push against, reshape, and find movement between rules, sometimes breaking these rules altogether.

Introduction

Luka is five years old. He has been "quantifying" since he was two and a half. First, he started collecting his daily "numbers" on a bathroom scale that records his weight, calculates his body fat, and uploads these data to a website charting his growth. Then, when Luka was four, he was given a *Fitbit,* a wireless activity and sleep tracker that counts each step he takes during the day. While Fitbit itself promises to make fitness fun by awarding badges for distance traveled, calories burned, and stairs climbed, Luka and his dad have invented many other games to "get more steps," including—if Luka notices he hasn't beaten yesterday's total—racing around the house like an Olympic sprinter before bedtime. One of Luka's favorite games is competing with Bruce from his dad's work, who is also connected to Fitbit's cloud service. On most days Bruce, a sedentary soul, shows up on the family's leaderboard losing to Luka. Winning against a real grownup, let alone one from his dad's work, is pure joy (Carmichael 2012).

Luka, or more accurately Luka's dad, is a member of the quantified-self (QS) movement (Schuller 2012). As I argue in this chapter, QS is closely tied with gamification. By *gamification* I mean "the use of game design elements in non-game contexts" (Deterding et al. 2011). Both emphasize self-improvement through tracking, both are tools of self-governance, and both characterize a new care of the self based on data. Not surprisingly, tools for quantifying the self are also examples of gamification, including Nike+, Mint, Runkeeper, Health Month, fitocracy, Daily Burn, 750words.com, and, of course, Fitbit. While gamified apps often fail to deliver the playful and game-like spaces they promise in their marketing rhetoric (for example, see Jaakko Stenros's chapter in this volume on the missing playfulness in gamified applications, and see Ralph Borland's chapter in this volume on how play is evoked in marketing the PlayPump), what

they excel at is providing meaningful feedback to users that is then enrolled in motivating behavioral change (see both C. Scott Rigby and Conor Linehan and colleagues' chapters in this volume for more on this). Mastering the self through the application of gamified data is an important method of governance. It is this relationship between gamification, quantification, and governance that I explore in this chapter.

Part 1: Governance, Surveillance, and the Care of the Self

In part 1 of this chapter, I draw from the work of Michel Foucault to first define what I mean by governance. I then argue that governance—and knowing the desires of those who are governed—is reliant upon surveillance. I briefly trace the historical relationship between surveillance and governance, from discipline in the eighteenth century to more modern modes of control focused on consumption and desire. Here, I begin to make links to commercial gamification products, such as the Fitbit, and how they enroll our desires for self-mastery and improvement into a new care of the self, a care of the self that is also predicated upon governance.

Defining Governance

When I talk about governance, I am referring to something broader than the voting practices and democratic institutions of the state that are the focus of Greg Lastowka and Constance Steinkuehler's chapter in this volume. I am referring to government as the "conduct of conduct." In other words, government is not just a state domain but includes "[A]ll endeavours to shape, guide, direct the conduct of others, whether these be the crew of a ship, the members of a household, the employees of a boss, the children of a family or the inhabitants of a territory. And

it also embraces the ways in which one might be urged and educated to bridle one's own passions, to control one's own instincts, to govern oneself" (Rose 1999, 3).

I am interested in how gamification is tied to the forms of neoliberal governance that are focused on the privatization and deregulation of the state, while simultaneously inducing citizens and corporations to regulate and govern themselves. Specifically, in this chapter I want to examine how gamification is used to encourage citizens to govern themselves, in terms of taking increased responsibility for their health care, education, and workplace productivity, as well as how they are encouraged to become more loyal consumers and clients. For example, how does gamification ensure that a five-year-old boy like Luka is aware his body-fat index and its relationship to his long-term health (and thus his potential burden on the health care system)? In these cases, the governors are not only state agencies, but also educators, employers, corporations, and even individuals such as Luka's dad. The governed are people like Luka—as well as you and I—the individual users of gamified applications.

Governance in the Foucauldian sense is productive. It is opposed to domination, wherein subjects have no other option but to obey. As put by Nikolas Rose, knowledge of those to be governed is key to this productivity:

> [T]o govern is to recognize that capacity for action and to adjust oneself to it. To govern is to act upon action. This entails trying to understand what mobilizes the domains or entities to be governed: to govern one must act upon these forces, instrumentalize them in order to shape actions, processes and outcomes in desired directions. Hence, when it comes to governing human beings, to govern is to presuppose the freedom of the governed. To govern humans is not to crush their

> capacity to act, but to acknowledge it and to utilize it for one's own objectives. (Rose 1999, 4)

In other words, governance is about knowing subjects and their motivations and desires well enough to determine how to get them freely and willingly to enroll in the governor's projects, and thus govern more effectively. This entails a much different conceptualization of power than domination through force—the governors are not focused on punishing the governed, but recruiting them as willing participants. In this sense, power is not a thing, but a relationship between people in which one affects another's actions. It is productive, rather than violent or repressive. It involves making a free subject do something he or she would not have done otherwise. Power is not just localized in the state and other authorities, but is present in all relationships.

Governance is a thus a process of translation, forging alignments between the objectives of authorities wishing to govern and the personal projects of those organizations, groups, and individuals who are subjects of government. Not surprisingly, there is a lot of interest in using gamification as a *technology of government* that shapes users' conduct in the hope of producing certain desired effects (such as using gamification to increase productivity in call centers) and averting certain undesired events (such as using gamification to reduce employee churn and absenteeism).

Surveillance and the Panopticon

Developing the knowledge required to discern the desires of subjects and govern them accordingly depends upon surveillance, making visible the space over which government is exercised: "defining boundaries, rendering that within them visible, assembling information

about that which is included and devising techniques to mobilize the forces and entities thus revealed" (Rose 1999, 33). The role of surveillance in governance is a central theme of Foucault's earlier work (Foucault 1977). *Discipline and Punish* traces the history of government from pastoral to feudal to near modern times, asking: *How do we go from an unruly, undifferentiated mass of people, to the orderly, productive, collection that we see today*?

Foucault argues that in order for society to thus organize itself, the key is render each individual visible, to separate them out, to closely observe, and then compare them to each other. The way this is achieved differs according to the point in history and the techniques available. For example, Foucault used Jeremy Bentham's blueprint of the panopticon as a vivid example of disciplinary power. A prison oriented around a central guard tower, individual prison cells in the panopticon create a ring around this central tower. At all times, prisoners are exposed to the gaze of those within the tower, though prisoners cannot see the other inmates, nor tell whether the guard tower is occupied or not. In this case, the simple fact that one may be observed is central to evoking socially accepted behaviors.

As put by Bart Simon, the power of the panopticon is twofold:

> On the one hand, there is a concern with processes of subjection and normalization that arise through the internalization of the gaze, while on the other there is a concern with processes of administration, social sorting and simulation that occur independently of embodied subjects. (Simon 2005, 1)

This administrative power of the panopticon quickly diffused to other spaces, such as schools, hospitals, factory floors, and military service, and initiated the birth of the record system (ID systems, police file systems, medical records, and academic grade systems), as well as written

systems for identifying individuals and—most importantly—tracking them over time. The ability to differentiate subjects and to track their performance over time further incites a desire on the part of the subjects to normalize, to fit in. By normalize, I mean conforming to the idealized norm of conduct. For example, Foucault uses the example of military drills, where each soldier is taught precisely how to stand, march, present arms, and so forth. Soldiers are then rewarded or punished for conforming to or deviating from this ideal. Today, normalization can be seen in body-fat index ratios, as well as scores, ranks, and grades.

This two-part disciplinary power—part focused on administering populations, and part focused on self-governance—fought the chaos of previous, more violent, forms of government by using surveillance to order individuals and, by doing so, impose efficiency and productivity. In the popular imaginary, however, the panopticon is equated to domination in the form of George Orwell's *1984* and the oversight of Big Brother.

Beyond the Panopticon: Games as Government

In the face of neoliberalism, the panopticon crumbles. At heart, disciplinary panopticism relies on individuals who want to become ideal citizens, part of a civilized polity who would govern themselves "through introspection, foresight, calculation, judgement and according to certain ethical norms . . . the social objective of the good citizen would be fused with the personal aspiration for civilized life" (Rose 1999, 78). The overarching impetus to become an ideal citizen, however, dissolves as people focus more and more on individualized goals and aspirations. Meanwhile, the bastions of this disciplinary governance—the church, the factory, the state—disappear in the face of deregulation, replaced by new domains, more agile models of production, and a de-emphasis of the collective social body. As put by Nikolas Rose, "Today,

perhaps, the problem is not so much the governability of society as the governability of the passions of self-identified individual and collectivities: individuals and pluralities shaped not by the citizen-forming devices of church, school and public broadcasting, but by commercial consumption regimes and the politics of lifestyle, the individual identified by allegiance with one of a plurality of cultural communities" (Rose 1999, 46). Accordingly, theorists such as Gilles Deleuze have extended Foucault's work to consider how governance is enacted in spaces premised on automation, *dividuation*,[1] and consumption. In these spaces, control operates on a more free-floating, adaptive basis that is rooted in desire rather than social conformity. In short, consumer society has replaced civil society, and thus modes of governance adapt.

In a consumer society, surveillance shifts from tracking individuals to monitoring behavior and consumption patterns. Populations are constituted as consumers to be seduced into the market economy. This monitoring is predicated upon limiting access to places and information and developing ever more intimate consumer profiles. Power is enacted through reconstructions of consumers' behavior, habits, and actions, knowledge that enables more effective governance. Accordingly, in the *society of control* there is a movement away from human watchers and their associated value judgments, and a movement toward seeing individuals only as bits and bytes in vast ebbs and flows of information. By tracing the aggregated desires of shoppers and system users, finding patterns in their flocking behaviors like a school of fish, and then channeling these behaviors, organizations thus enact governance, knowing subjects and their motivations and desires well enough to determine how to get them to freely and willingly enroll in their projects.

Whereas the panopticon depends on the individuals, first individuating them in order to form them into a more productive social body—like cogs in a vast machine—Deleuze's (1992)

society of control is automated by technology. Rather than relying on prison guards and drill sergeants to discipline individuals, control operates according to machinic demands and is reliant on codes and passwords, on data and databases. The body is transformed into pure information—the data double—so it can be rendered more mobile and comparable. Information, such as shopping habits, user preferences, bank account numbers, voting preference, location, and so forth, is separated from individuals and recombined in new ways outside of their control. These recombinations, such as user and customer profiles, are based on the criteria deemed salient by those with access to the information, be they government officials or corporate marketers.

Instead of individuals—irreducible and with an autonomous sense of agency—the new subject of governance is instead the dividual, an artifact of data mining searches and computer profiles. People, each as individual wholes, are unimportant. What is important are how masses of people can be broken down into more manageable parts by collecting the data streams they trail behind them, filtering out the parts deemed important, and ignoring the rest. *Dividuals* are then governed automatically through databases and levels of access and exclusion. For example, in banking transactions, your name and identity are entirely unimportant. What matters is whether you hold the appropriate account card and provide the correct PIN password to access your account. In financial institutions, you are abstracted into streams of numbers and transactions that are aggregated with the transactional streams of other clients, which are then used to streamline operations and predict future economic patterns.

On the part of the user, governance is short term and rapidly shifting, but at the same time continual, unbounded, and ruled by pleasure and desire. We are not confined. We are free consumers. We monitor ourselves or submit to monitoring willingly in order to maintain or augment social perks. This pattern is characteristic for today's Web services, such as those that

Google provides; from efficient Internet searchers, to maps and real-time traffic reports, to cloud storage, to e-mail and social networking services, to YouTube. The data we willingly divulge are used to "serve us better." It is here that we see the link between gamification and governance. Gamification enables a form of governance much closer in alignment to what Deleuze proposes.[2] We broadcast our personal data as the price of participation.

With the Fitbit, Luka's name and identity are rendered unimportant, as is the fact that he's using the system as a way to interact and bond with his father. What is important is whether the system is registered to a valid online account, and that a steady stream of data—in this case, steps, acceleration data, location, and data on when the system is turned on and off—is being sent back to Fitbit. These data are combined with the usage patterns of other Fitbit dividuals, as well as amalgamated with the demographic data culled from these users' online profiles. It provides clues as to what traits, demographics, and usage patterns may correlate to the most profitable or loyal users, as well as insight about who to target marketing at, and how to improve the system's algorithms and tracking capabilities to attract more lucrative clients. However, gamification as governance promises something more than just tailored services. It promises to tell us more about ourselves.

The Care of the Self

While links may be drawn from discipline, normalization, and panoptic surveillance to gamification, in comparison to the governance exhibited in the factories and prisons of the eighteenth, nineteenth, and twentieth centuries that Foucault described, it is somewhat difficult to imagine Luka's competing with Bruce "from dad's work" as akin to the activity of a prison inmate. Luka is playing with surveillance in a much more self-directed way. The impetus to track

and monitor his daily numbers comes from within, and from his dad, rather than the formal authorities such as the school or state. In this sense, Luka is using gamification in terms of a traditional care of the self. The fact that this care of the self is bundled with other technologies of governance (i.e., Fitbit monitoring Luka and influencing his health and consumption patterns) is largely irrelevant. Accordingly, this playful quantification presents powerful new opportunities for governance.

The term *care of the self* refers to the later work of Michel Foucault (1988). Foucault argues that the care of the self was a foundational principle of all moral rationality up until the Cartesian moment and the Enlightenment. Foucault draws heavily from the Socratic dictates that one must care for oneself and know oneself, arguing that through this self-reflection and care, individuals come to see themselves as responsible for constituting themselves as moral subjects. This care of the self was achieved in three ways: (1) knowing how to live without luxury, through abstinence, (2) regularly subjecting oneself to a thorough examination of one's conscience, and (3) be in constant control. Already, we can draw parallels to many gamified applications, such as Health Month or SuperBetter, which prioritize similar forms of self-reflection as a route toward self-improvement.

Elsewhere (Whitson and Haggerty 2008), I have used the moral panic surrounding identity theft to show how this care of the self takes a different modality in the digital age: we now care for our virtual selves, curating and maintaining the accuracy of our "data doubles," the informational profiles (market profiles, credit histories, social networking accounts, and even the avatars and account settings for online games) that have become the lifeblood of our interactions with others and the real objects of governance.

In the informational era, our physical bodies seem to fall away. Yet, QS and gamification movements are now bringing the body back in. I argue that this characterizes a new modality of governance that leverages a new set of desires—exploration, curiosity, self-mastery—that characterizes both QS and gamification. Gamification, unlike QS, is also imbricated with discourses of play that effectively shape how it operates.

Part 2: Gamifying the Quantified Self

While part 1 of this chapter provided the theoretical background of Foucauldian governance and the historical evolution of governance techniques, part 2 shows how gamification and the QS movement come into play. In this section, I continue with my discussion of the care of the self, explaining how the quantified-self movement parallels gamification movements. I then make the novel argument that fun is irrelevant in gamification. "Fun" in gamification is, for the most part, empty marketing rhetoric. What matters in gamification is giving users actionable feedback on how to improve. This feedback is what games do well and is where the real link between games and gamification lies.

The Allure of the Quantified Self

Before moving onward to gamification, it is first useful to provide some background on QS. The QS movement was started in 2007 by Gary Wolf and Kevin Kelly, both editors of *Wired* magazine. Interested in using ubiquitous technology to track the self and thus develop self-knowledge, quantified self is also known as "self-tracking," "body data," "living by numbers," "self-surveillance," "life-hacking," "personal analytics," and "personal informatics." These systems collect information about the user and present it back to them, treating people as both

the object and the subject of its function (Li 2011, 9–10). Users enroll in QS programs out of curiosity, and continue with them because the data provided are so compelling: "they continue because they believe their numbers hold secrets that they can't afford to ignore, including answers to questions they have not yet thought to ask" (Wolf 2010). The quantification of the self—by compiling the intricate details of our lives and then rebroadcasting them to us in new ways—promises to tell us something about ourselves that we did not already know.

While the quantification of the self has commonalities with the time-honored tradition of journaling and the care of the self as an ethical practice of reflection detailed by Foucault (1988) and the list-making more recently described by Umberto Eco (2010), what is different is the precision, complexity, and the amount of the data collected, as well as the way it is ultimately presented back to the chronicler. Instead of leaving it up to us to decide what is worth chronicling, and then delegating our spotty memories to provide the details, the journaling process in the era of QS is automated, enabling incredibly precise details.

The quantification of the self is not new, but automation greatly expands its scale and scope, as well as its effectiveness at telling us our secrets. As stated by Gary Wolf, we track ourselves all the time:

> We step on a scale and record our weight. We balance a checkbook. We count calories. But when the familiar pen-and-paper methods of self-analysis are enhanced by sensors that monitor our behaviour automatically, the process of self-tracking becomes both more alluring and more meaningful. Automated sensors do more than give us facts; they also remind us that our ordinary behaviour contains obscure quantitative signals that can be used to inform our behaviour, once we learn to read them. (Wolf 2010)

The unifying methodology of QS is data collection, followed by visualization of these data and cross-referencing, in order to discover correlations and modify behavior.

We are used to measuring and quantifying many things in our lives—from optimizing assembly line production, to measuring how fast our computers operate, to grading our intelligence, to using software to clock how many hours, minutes, and seconds we work each day. This disciplinary monitoring is commonplace in public spaces (work, school, hospitals). What is new with QS is that individuals are now willingly monitoring themselves in nondisciplinary spaces and making these details public. For example, whereas measuring food intake or mood was previously an activity restricted to health institutions and revealed only to experts such as nurses and doctors, we now use tools such as diet and health tracking apps to share and broadcast this information to an unspecified public.

Technologies such as the Fitbit or SuperBetter enable us to measure, chart, and quantify what was previously unquantifiable and also allow us to transmit and share what was previously private. It is now relatively simple to measure and analyze patterns in our sleep, exercise, sex life, food intake, mood, location, alertness, productivity, and even our mental health and spiritual well-being. We effortlessly track and measure, display and share all of this heretofore unknown data using our computers, smartphones, and gaming consoles.

While the QS may represent the extreme pole of "self-knowledge through numbers" (Wolf 2009), most of us, in one form or another, have quantified our lives in one way or another, from tracking our fuel consumption on smartphone apps, to monitoring our infant's diaper changes, feeding times, and sleep schedules, to subscribing to Mint to help us track our spending habits. Most of the time we are using gamification to do so. This is not a coincidence. Games and gamified apps are excellent tracking devices.

Gamification as Feedback Loops, Not Fun

Promises of fun and play populate the advertisements of gamification companies such as Bunchball, BigDoor, Badgeville, Lithium, SCVNGR, Greengoose, and Seriosity. However, critics such as Ian Bogost (this volume) argue that these are empty promises. Behind the empty badges and meaningless leaderboards, there is often no "game" in gamification. Accordingly, the failure of gamified products to sustain users and maintain the breathless hype that preceded their deployment makes sense (see Evans 2010). They simply do not deliver. Yet I argue here that the failure of gamification to provide "fun" (whatever that nebulous word means) does not mean that gamification as a whole is a failure. What gamification successfully borrows from games are the methods to provide clear feedback and reinforcement to users. This, and not playful or gameful design, is what characterizes current examples of gamification.

The ways that games render space visible, from points systems to pathfinding, are what is leveraged in gamification. Feedback methods borrowed from games are key to caring for the quantified self. As Stanford psychologist Byron Reeves and his business partner J. Leighton Reid discovered in their research on games and gamification, data visualization techniques from games are essential tools in shaping users' behavior: "Game interfaces set a new bar for feedback. At any one time, Helen sees progress bars, zooming numbers, and status gauges, all in a well-organized dashboard that lets players know how things are going, good or bad. Numbers indicate the health of players, the time left before an attack, the amount of gold accumulated so far" (Reeves and Read 2009, 71). Games excel at providing precise real-time feedback to help players chart their current progress and determine how to advance. Feedback thus governs behavior; steps toward a goal are encouraged in multiple ways and channels, while steps in the

wrong direction are penalized. Feedback can be immediate, for example, providing a World of Warcraft player with real-time *per second* data on how he or she is faring in an attack. But feedback also takes mid- and long-range forms, providing information on how a player is progressing with goals that take weeks, months, or even years to accomplish.

In games, performance metrics and feedback are overwhelmingly positive and focused on improvement, reward, and engagement rather than highlighting deficiencies. Of course, failure still exists, but the risks and punishments for attempting something and then failing are not as severe. Negative feedback works to highlight areas that require improvement and suggest changes in tactics that may help in achieving success, rather than punishment. Thus, players can clearly decipher what they need to do in order to progress. For example, each failure of a World of Warcraft raiding party provides valuable statistics on what techniques are successful (i.e., attacks that inflict maximum damage, team formations that provide an optimum balance between tanks and healers, etc.), and what actions to avoid. Each consecutive failure comes with an incremental improvement in strategy until finally, the raiding party is victorious. Failure provides valuable information on how to become better: "Quick feedback creates immediacy and contingency in the interactions. When you make a new move, you know quickly whether the action was right or wrong. The close connection between behaviour and feedback (it's usually obvious which reinforcement applies to which behaviours) increases the likelihood that the reinforcement will be effective" (Reeves and Read 2009, 72).

Porting the feedback methods used in games to non-game activities thus makes sense. We turn to gamification to respond to a gap in our day-to-day lives, where feedback on one's progress, cues for future directions, and a place for experimentation and even failure is lacking.

For the most part, feedback in the real world is much more infrequent and difficult to accomplish, largely because the automated cycle of data collection, compilation, analysis, and feedback is simply not established. For example, at work feedback is often restricted to annual performance reviews, whereas in academia, feedback cycles can take months and even years—as in a tenure application or journal submission.

The form of surveillance exemplified by online games would have been impossible to carry out in the past. The sheer amount of data collection, analysis, quantification, and feedback, especially on a moment-to-moment basis, would have been entirely impossible. But, automated closed systems, such as the walled gardens of games and social networking sites, put Moore's law into practice. Inexpensive data storage and number crunching, combined with the increasing ubiquity of mobile sensors, make the collection and analysis of data much easier. These advances are combined with a shift away from rudimentary analytics such as aggregate page views to more sophisticated individual user behavior analytics, which were initially developed in social games. With these tools, progress on tasks is now easy to chart and reward, especially as virtual rewards and reputation scores do not have to cost anything. Accordingly, I argue that the key commonality between games, the myriad examples of gamification, and QS is the leveraging of surveillance. Whether online or off, users' behaviors are tracked via technology that monitors progress. These metrics are then used to provide incremental feedback to the user, thus indicating what the user needs to do next in order to achieve his or her goals. The promise of a "game" and the desire to level up and win (or at least to beat "Bruce from dad's work") is used to inculcate desirable skill sets and behaviors. Gamification is thus rooted in surveillance; providing real-time feedback about users' actions by amassing large quantities of data and then simplifying these data into modes that are easily understandable, such as progress bars, graphs, and charts.

Proponents of gamification, such as Reeves and Reid, have created companies such as Seriosity to leverage gamified feedback in places such as corporate offices to lowly call centers, shifting the mode of surveillance from a single-player game to one that effectively governs a whole office.

The "game" involved in gamification projects is in setting challenges and goals, both short term and long term. Charts, graphs, and statistics are automatically compiled, transforming what is essentially a large database of meaningless numbers into something that users can quickly parse and understand. By gamifying everyday tasks such as exercise and healthy living, users might make solitary and tedious activities more enjoyable. At the very least, even if the tasks are still unenjoyable, users feel that they are making some progress, however incremental. Thus, gamification does not have to be "fun" to be successful (although it certainly can be fun).

What is important here is that this is *willing* self-surveillance. This is not the institutionally imposed disciplinary surveillance of Foucault, or even the instrumentalization of hedonistic desires that fuels the consumer surveillance described by Deleuze. Gamification enrolls people into self-governance by using their highest aspirations and capacities, that of self-care and self-development. With the aid of data gleaned from these practices, gamification creates heterotopias.

Part 3: Gamified Heterotopias

Following Foucault, heterotopias are not utopias or dystopias, but spaces of difference that mirror, reflect, represent, designate, and speak about other sites, while at the same time suspending, neutralizing, inverting, contesting, and contradicting these self-same sites (Foucault 1986). Gamification can create critical-reflective heterotopic spaces, but it can also create

dystopic spaces. Thus, all gamified spaces exist upon a knife's edge. The ability to master and reshape the body or to solve much larger global issues through play clearly has utopic potentials (McGonigal, this volume). However, the potential effects of gamification can quickly become dystopic. The trick of the playful discourse used in gamification marketing rhetoric is to make corporate dystopias appear as if they were heterotopias.

Gamification leverages a discourse about using "fun" to reshape and remake the world, regardless of whether this fun is realized or not. In the words of SCVNGR founder Seth Priebatsch (2010), it creates a "game layer on top of the world." In this sense, this transformation creates pockets of heterotopic space. When individuals gamify aspects of their lives, they are changing mundane spaces such as their daily running routes, their classrooms, gyms, and workplaces into heterotopias. Gamification creates a space of difference that overlays, and is linked to, these everyday spaces. It thus simultaneously sustains and undermines normalcy.

Gamification not only turns physical spaces such as gyms, living rooms, and offices into heterotopias, it also affects our own bodies and our relationship to them in a similar manner. Like the mirror, the quantified self as an object of analysis both represents and—simultaneously—inverts the body and our day-to-day actions. Gamifying this quantified self, in turn, breaks down oppositions between private space, including the intimate details of one's life, and public space by uploading these data to databases of thousands of other users to compare and normalize. It breaks down divides between the cultural space of games and the useful space of production, between the space of leisure and play, and that of work. It turns our physical movements through space and the interactions we have with others into reams of data to be collected, analyzed, and presented back to us in new formats. This data-driven heterotopia provides a contrast with the messiness and fallibility of physical human bodies. In the words of Peter Johnson (2012, 10), it

becomes “a meticulously arranged enclosure that exposes the jumbled mess we tend to live in.” The quantified self that we develop and then shape according to these data is both real and not real. The body itself is both a subject and object.

Heterotopias change their function at different stages in history, reflecting wider attitudes in society. Moving from the traditional care of the self (the lists and journals and self-reflection) to gamification as a way to reflect upon ourselves, we see our body and our behaviors in a new light—as something that can be quantified, measured, and segmented into tractable data in order to master and reshape. In the panoptic age, this was done by institutions such as school and hospital with grades and medical charts. Now we undertake this quantification of the self under our own free will. We become self-regulating agents. Yet governing institutions are not wholly absent. They only appear to be. This third, and final, section of the chapter discusses some of these dystopic effects, especially those related to the quantified self, as well as the role of play in mediating them.

Self-Regulation and Corporate-Governed Dystopias

The surveillant practices that are embedded in technologies for the quantified self become essential tools for measuring one’s progress, providing feedback, and highlighting routes toward this success, whether it is running for thirty days in a row, losing fifteen pounds, earning a promotion, or getting more miles to the gallon while driving. Personal informatics tools, such as those used in QS projects, are an improvement over other methods of care of the self because pure self-reflection is often flawed. These “systems help people by facilitating collection and storage of personal information, and by providing a means of exploring and reflecting on the information” (Li 2011, 23–24). By helping users observe and record their behavior, users can

then reflect on using visualizations to compare their behavior to a particular goal or standards and thus regulate themselves with little external aid.

Not surprisingly, the relative simplicity of what can currently be measured, coupled with the increasing sophistication and decreasing cost of monitoring technologies, creates the impetus for QS services to collect ever more information, especially the *contextual information* that could deliver cues to behavior change. As put by Li (2011, 2), "A tool that allows users to associate contextual information with behavioral information can better reveal factors within one's life that affect behavior, compared to existing systems that only show behavioral information." For example, using the Fitbit to learn that you walked fewer steps this week than last week is only part of the puzzle of actually amending one's behavior. The key to answering "Why did I walk less this week?" lies in gathering a wide range of information from exercise levels, to physical health biometrics, to personal events calendars, to menu information, spending habits, and so forth and so on. This contextual information could pinpoint a number of interrelated reasons for walking less, such as a paycheck that meant one had money to take the bus, coupled with a busy social calendar that prioritized time at the pub eating greasy food, which—in combination—resulted in both reduced energy and fewer visits to the gym, and thus less steps.

What this means is that quantification services are compelled not only to gather much more precise and intimate information, but also to link together information from different domains of our lives. Currently, most systems are unifaceted, only showing one aspect of our lives, such as Mint for finances, Nike+ for physical activity, 750words.com for writing productivity, and so forth. But integration between these services or the creation of multifaceted tools would be undeniably more useful in terms of caring for the quantified self. A participant quoted in Li's study exemplifies the growing desire to chart more and more of our personal lives:

"I now want to record all the minutiae of my personal life that aggregates into interesting data. I want to graph the people I see, the things I do, the hours I devote to every significant task, and the money I spend and why. I want to have yearly data that shows, for example, that I spent 1,000 hours on programming, but only 400 on reading, or that I spent twice as much in coffee shops as I did on groceries" (Li 2011, 75). As addressed by Lori Andrews (this volume), this desire to quantify and correlate the different aspects of our lives raises substantial concerns about privacy and data protection.

The amount of additional information collected by QS services can be astonishing. For example, to "benefit fully" from Fitbit's mobile services, users must create an online profile that includes height, weight, gender, and age. If you use Facebook to access your Fitbit account, Fitbit has access to additional information from Facebook, such as your name, profile picture, gender, networks, user ID, list of friends, and other information that is associated with the account, including your birth date and location. And if you use the social services enabled by Fitbit such as broadcasting about a weight-loss goal, information about those you share with, such as their names and e-mail addresses, are also collected by Fitbit.

In 2011, Fitbit itself ran into trouble with its default privacy setting that set profiles as public, allowing them to be searchable online. What this meant was that any user who fails to unclick this setting automatically posts Google-searchable information on his or her daily health activities, sleep quality, and profile information. The ability to search for users and discover intimate details such as their self-reported sexual activity—including the duration of each sexual event and approximations of calories burned—highlight the problems with Fitbit's information policy. Yet, it's clear that even posting seemingly benign information such as daily steps becomes an issue when Fitbit users are as young as five-year-old Luka.

The desire to collect and combine ever more precise information points to a recurring theme in surveillance studies: function creep. Function creep describes how data collected for one purpose is then applied to new uses. For example, while users pay Fitbit for its health monitoring system, Fitbit uses the information it collects to attract third-party advertisers, thus creating a parallel revenue stream where access to users and their information is what is being sold, not the Fitbit product line. For free services such as Mint, the entire revenue model is predicated upon shaping users' desires—and recommending other services to use and partnership offers—in exchange for lucrative advertising revenue.

What this means is that surplus value is created from the information we trail along behind us, information that is then used to govern our consumption habits and our leisure activities. Instead of being compensated for this surplus value, with QS services we are instead paying for the privilege of being monitored and marketed to. In terms of function creep, it is not inconceivable that future insurance and health services will take into account this information, selectively providing services and pricing structures based on the long-term health habits that people like Luka formed in youth and have been tracking since the age of four.

When data are sent directly to employers, parents, teachers, or personal physicians, function creep contributes to more personalized governance measures. For example, RescueTime (https://www.rescuetime.com) is a Web-based QS application that keeps track of a user's computer usage in order to help him or her with time management. It unobtrusively tracks what productivity applications, websites, games, and so forth, are used and how long the user focuses on each one. RescueTime creates beautifully visual analytics that graph how users spend their time and attention. Users may also block distracting websites, as well as have the system "nudge" them to return to their task if they have been idle or distracted for too long.

Buoyed by its success in the media, yet disappointed by low sales, RescueTime started focusing its sales efforts on institutions rather than individuals. RescueTime Empower performs the same tasks as the original application, but sends these data to managers while allowing employees to see their own data and have some control over what is being monitored and when. RescueTime then introduced another product: RescueTime Pulse, which "allows managers to see how employees are spending their time without the employees being able to see or control the monitoring software." In their corporate blog, RescueTime defends their choice:

> A restricted mode offering was literally the most requested feature from our business customers. RescueTime is a software startup, which means that our first mandate is to build something people want. . . . Which may or may not necessarily map to what we THINK they should want. . . . Revenue and profit are king and we can't expect to focus on free/consumer audiences forever. While we will always serve that individuals, [sic] we thought the site should reflect our focus on business customers. (Wright 2009)

It is here we see a more insidious form of function creep, as the product moves from a personal QS tool to an institutionally mandated time-management service, to a service allowing employers surreptitiously to spy on their workers and algorithmically rank their productivity.

Statistics, measurement practices, and classification schemes more generally are never just a benign assessment of the world, but change our conception of the world and our understanding of ourselves (Huff and Geis 1954; Bowker and Star 1999). Quantification practices tell us what is important to measure, how we should measure it, and indicate how we should change it. On a technological level, it is much easier to measure and reward some behaviors in comparison to others. For QS tools, aspects of life that are easily measurable, such

as steps taken, calories burned, the number of Facebook friends, or the number of minutes spent working on a business report, become superficial stand-ins for much more complex concepts, such as overall health and well-being, the strength of social relationships, and the value of an employee.

While a QS user may believe that this validation is unbiased, it is important to emphasize that particular values are deeply inscribed in the system. The system rewards the user for his or her actions, and points are generally rewarded in a transparent manner, thus seeming objective and fair. Yet the valuation of what actions earn points is set by the designers of the system, thus system designers have more control than ever (Whitson 2010). They can reward subtle changes in behavior to inspire and evoke optimum performance. Only certain behaviors are worthy of notice and rewards. So, in systems like Foursquare, brand loyalty, return visits, and consumption are all worthy of rewards. In the case of a gamified call center, answering as many calls as possible within a time limit is valued, whereas in a RescueTime-managed office, the ability to avoid Web-browsing and other distractions matters more than the actual quality of one's work.

While the dashboards of these systems are seen as transparent—showing users exactly what other users are doing—the inner workings of the system are opaque. These inner workings—composed largely of algorithms designed by developers—produce and certify knowledge (Gillespie, 2014). This knowledge is premised on specific ideas of what the ideal self should be, and how to operationalize this self into relevant components that can be monitored, measured, and rewarded. However, this knowledge, and the algorithms that create it, is a moving target, obfuscated from view and—unbeknownst to the user—constantly in flux, being redefined and redesigned according to the needs, goals, and desires of the system operators. Every aspect can be monitored and controlled. Questioning what behaviors are rewarded and what behaviors

are ignored is not done, because the rules of the system are hidden with the black box of technology. This is especially true for gamification.

The close relationship between gamification and quantification is not surprising. Both are rooted in the same technological affordances, such as ubiquitous mobile devices, the exponential improvement in data storage and processing, and the improvement in the quality, size, and cost of biometrics sensors (including an accelerometer the size of a piece of confetti in Luka's Fitbit). Both are focused on data collection and feedback. And both emphasize and encourage values such as competition, advancement, efficiency, and accumulation. They foster a technoliberal American Dream, telling users that if they work hard enough they can achieve victory—in games and in real life. Of course, hard work in this case is not represented by back-breaking labor or even bootstrapping entrepreneurship. Rather, gamification and QS rephrase the American Dream in terms of using technology to master and shape the body, in the process creating a victorious healthy machine, one that has many friends and followers and is a productive worker and savvy consumer.

Gamification practices, in particular, build upon psychological desire for self-mastery and self-improvement, reputation and status building, achievement and reward (Kim 2000, 2009, 2010). These efforts foster a sense of autonomy and self-efficacy as the player selects what quests to complete, how they do so, and on what timeline. As stated by Jason Della Rocca (2010), "With regards to social validation, games provide an unbiased judge: The rules of the system are arbitrated by the unfeeling computer. This is transparent, highly detailed and visible to the community as a whole." With gamification, the computer becomes the assessor of reputation, with the assumption that technology is more objective and infallible than humans.

However, gamification differs from QS in how it leverages discourses of play initially to entice users into this self-monitoring. Surveillance is phrased in terms of enabling free play and promoting engagement; accordingly, there is less reason for users to opt out or resist gamification, even if it is imposed upon them by others. But this free play does not mean that users are unsupervised. They are surveilled more closely than ever before. Everything they do online is logged and entered into a database. Performance metrics become indicators to the inner self. They are "a complete and public package of competency, prowess, and experience . . . that makes it more true in the game than in real life that what you see is what you get" (Reeves and Read 2009, 75). What is new is that surveillance is framed as fun (Albrechtslund and Dubbeld 2005). To reiterate the central tenets of governance via gamification: Supervision is not about discipline and control, but is geared toward providing meaningful feedback and rewards.

Following Nikolas Rose, governable spaces are not fabricated counter to experience: "they make new kinds of experience possible, produce new modes of perception, invest percepts with affects, with dangers and opportunities, with saliences and attractions" (Rose 1999, 32). Though technical means, gamification creates real and material governable worlds that are then composed, terra-formed, and populated by users.

Gamification and QS movements create governable spaces that then interpellate certain subjects who are interested in autonomy, freedom, and self-regulation. As put by Rose:

> The individual is to adopt a new relation to his or her self in the everyday world, in which the self itself is to be an object of knowledge and autonomy is to be achieved through a continual enterprise of self-improvement through the application of a rational knowledge and a technique. To live as an autonomous individual is to have learned these knowledgeable techniques for understanding

> and practising upon yourself. Hence the norm of autonomy produces an intense and continuous self-scrutiny, self-dissatisfaction and self-evaluation in terms of the vocabularies and explanations of expertise. (Rose 1999, 93)

In other words, we use gamification as a tool for self-mastery and self-improvement. In striving to live our autonomous lives, to discover who we really are, to realize our potentials and shape our lifestyles, we become tied to the project of our own identity and bound in new ways to pedagogies of expertise that are not self-imposed, but rather carefully sculpted by QS and gamification designers. These designers, in turn, are working to shape their own ideal subject/user—one who consumes product in the quest to care for and improve himself or herself, while generating ever more data that can be enrolled in ever more governance. Ultimately, our desire for self-development and autonomy is to a large extent enrolled by others in their goals, if not first created and nurtured in order to then be harnessed.

Player-Centric Utopias

So far, I have painted a rather bleak picture of gamification. The key to avoiding these dystopic effects lies in a de-emphasis on the ubiquitous and increasingly precise surveillance fostered by corporate gamification services, and a reemphasis on the role of play and games in other, not-for-profit, gamification projects.

Current gamification projects encourage the subjectivity of *users* rather than the subjectivity of *players*. The fundamental issue here is the treatment of gamification just like any other software geared toward helping someone efficiently and expediently carry out a task—in this case self-regulation and improvement. Yet, as summarized by Barr, Noble, and Biddle (2007), there is a variety of traits that separate games from other software, such as word

processing applications. There is a considerable difference between why games are made (e.g., entertainment rather than meeting an end goal) and why other software applications are created (e.g., efficiency, productivity). At its heart, gamification focuses on making everyday tasks simple for users to accomplish in an efficient and timely manner. It is fundamentally a productivity tool and not a game. For example, we use the Fitbit to focus on an end product (our physical health), and we bring our own personal projects and goals into play, expecting that the Fitbit will make reaching our goals easier, rather than putting constraints and artificial barriers in our way. In short, what we really want is for the Fitbit to be an efficient and easy-to-use tool for health management, not a game. This opens the door for governance projects that masquerade under the rhetoric of being just a fun game (Whitson 2013).

The solution is not to abandon gamification, but rather to focus on making it more *gameful*. When we see the everyday as a game space, and not as some self-improvement project, we create new rules of play. I am arguing that the solution to dystopic governance is not to abandon gamification altogether, but to (re)unite games and gamification, and to introduce rationalities of play. Following a governmentality approach, I use terminology such as *rationalities* similarly to how game scholars use *rhetoric*. *Rhetoric* is a discourse, narrative, and argument for how the game world works. It provides the player with implicit instructions on how he or she should act in the game and points to potential methods and techniques for playing and winning the game (Sutton-Smith 1997; Bogost 2007; Bogost and Salen 2008). In short, gamification *users* should be encouraged to become *players*.

There is something important about interpellating *players* instead of *users*. They bring their modes of play along with them. This play includes joyful explorations and tangential detours/*détournement*. It also includes counterplay, both of which complicate the surveillance

projects that constitute corporate gamification endeavors. The very nature of games and play encourage testing, bending, and even breaking the rules (Whitson 2010). Playing a game necessitates learning the rules and testing their boundaries (e.g., how high can I jump? who/what can I shoot? etc.), while winning requires mastery of the rules (Koster 2005), and in some case bending (e.g., exploits) or breaking them (e.g., mods or cheats) in order to win. Players consciously decide to play with the rules and structure of the game (Sotamaa 2009, 82). Mastering, beating, and even subverting rules is an essential part of "play," and cheating and hacking are commonly intertwined with this play (Consalvo 2007; De Paoli and Kerr 2009; Grimes and Feenberg 2009).

However, in gamified systems, this playing with the rules is not encouraged. Many instances of cheating gamified applications are simply self-defeating (e.g., "forgetting" to enter that doughnut you ate on gamified weight-loss apps). In many gamified systems, especially the visions of the gamified workplace and classroom promoted by Reeves and Reid where salary bonuses and grades are dependent on performance, the incentive to cheat becomes overwhelming. In these instances, there are significant consequences for failure that go far beyond loss of face or gamer capital. Players are already predisposed to pushing back and reshaping the rules.

There is an obvious disconnect between the desire on the part of the designers of gamified products to promote the efficient, productive behavior of their users, and the inherent playfulness of gamers themselves, who are less interested in efficiency than they are in exploration, or defining the limits of the systems, and in many cases playing with them. We already play with everyday content and situations, using gamification to change mundane space. Not surprisingly, the term *gaming the system* refers to applying these playful subversions and

exploits of games to defeat and remake non-game systems that are seen to be overly constraining. So far, in gamified workplaces, classrooms, and exercise routines, the "game" is present only in marketing rhetoric. The key to maintaining knife-edge heterotopias is to allow gamer subjectivities and playful acts to remake everyday space, without imposing top-down corporate surveillance and governance measures.

Luka and his father have already started to create their own family heterotopia, eschewing the badges and goals handed down by the Fitbit system, and by doing so, refusing to let Fitbit define their ideal selves. Instead, they make up their own games where the rules are constantly fluid, mutating, and open to negotiation (just like Luka's bedtime). The Fitbit, in this case, operates as a gameboard populated with Luka's own data. The key to maintaining this heterotopia lies in finding ways to decouple the Fitbit from systems of corporate surveillance and governance. Allowing users the choice to store and analyze the data on their own computers, rather than sending it to corporate servers to be dividuated and amalgamated is one option. At the very least, making more transparent the decisions of what data are collected and what is done with that data may help users discover the (hidden) values embedded in the system. In this way, Luka and his dad can decide for themselves whether the Fitbit is something that can be played with and reshaped, or not.

{Notes_begin}

Notes

1. For Deleuze, *dividuation* refers to the internal division of individuals into malleable bits of coded information that are more amenable to being measured, recombined, and aggregated into populations of other dividuals.

2. Foucault wasn't blind to this, just concerned by earlier formulations of control. Deleuze is writing in the spirit of continuing Foucault's analysis from pastoral governance based on the shepherd governing the flock, and a priest governing his congregation, to sovereign power based on the spectacle of the ruler's power and might, to discipline operating through surveillance and normalization. Deleuze extends this analysis further, to control operating through consumption and desire.

{Notes_end}

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