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## EMERGENT CULTURE: INSTITUTIONS WITHIN SYNTHETIC REALITY

It is perhaps shocking to think that, even at their comparatively small size of a dozen million or so participants, synthetic worlds are already beginning to affect the "outside" world, by which I mean the ordinary institutions of human connection: marriages, the web, markets, companies.<sup>1</sup> Yet it is so; it seems that the patterns of behavior spawned by synthetic worlds are not completely contained within them, so that the way people act in other contexts is affected. The most obvious case (though thoroughly anecdotal, in that there have been no studies on this) involves marriages and other close relationships. People who spend all their time pursuing friendships and romance online are choosing to let their offline relationships wither. The institution of online friendship takes away time from the institution of offline friendship. This interaction of institutions, cultures, and the "rules of the game" happens because no one can actually spend every moment inside a virtual world. Even those who try to build a life in cyberspace do come out from time to time, and even if they did not, their absence would make a difference. And so there are already observable phenomena in the real world that have only happened because of the emergence of the synthetic world. But before we can outline some of these external changes (the subject of part 2), we need to describe, in this chapter, the kinds of macro-level behavior we typically see inside the worlds.

In describing behavior, I will treat the terms "institutions," "culture," "behavior patterns," and "rules of the game" as more or less interchangeable. This usage, which I've found extraordinarily helpful in the analysis of macro-level evolution of human society, derives from the notion of *institutions* as developed by scholars operating in the borderlands between economics, political science, and mathematical game theory. Institutional theory tends to be different things to different

people, but in its most persuasive expression it holds that human institutions are the rules of some game, rules that all the players adhere to out of self-interest, and yet which have a powerful structural influence on what they do (Baron and Ferejohn 1989; Calvert 1995). A typical example holds that the US Constitution is an institution that defines the rules of the game involving elections, the branches of government, executive authority, individual rights, and so on. Whenever strategic conflicts emerge over these issues, the Constitution is considered the final arbiter of which moves are allowed and which are illegal. It also dictates what happens after a series of moves by the players. In referring to these rules as "institutions" rather than "laws" or "natural orders" or "history," scholars are able to emphasize the fact that the institutions themselves have emerged from gameplay at a higher order. The US Constitution itself emerged from a struggle, and that struggle itself was part of a game. Its predecessor, the institution of the British Monarchy, is also a series of rules dictated by the play of some distant and, importantly, *long-forgotten* game. This is never more evident than during a coronation ceremony, when it is obvious that the Queen herself cannot choose where to go or what to do; she must abide by the formal rules that dictate her every position, gesture, and mood. A web of rules like this is also a way to understand what is meant by the term "culture." If we understand culture as a set of shared symbolic meanings, we can get the same understanding by viewing it as a series of rules that tell people how a symbol translates into a meaning. Constitutions, coronation ceremonies, languages, and rituals: these are all regular behavior and signification patterns that result from the choices and understandings of participants, under some set of rules.

In the current context, the institutional way of looking at the world delivers an important insight: patterns of behavior are emergent. The rules of the game today evolved from some prior set of rules, which dictated not only play but meta-play, the play of the game that's intended to change what the rules are. While it may be comforting, in the real world, to take some of the rules as stable and unchanging (such as the US Constitution), the actual and maddening fluidity of rules has become part of the daily life of those who design and operate synthetic worlds. Every rule they declare, even ones they code into the world as part of its physics, induces reactions by the user community that may subvert or amplify the rule's effect. Designers and the user community are in an endless tug of war about what the rules actually are.

As an example of this tug of war between the coding authority and the users, consider the common practice of assigning combat roles to different character types. In many games, the coding authority defines a character class known as "healers" of some kind (doctors, clerics, medics, druids, and such). Because of

their intended role, these characters are given access to abilities that will heal other users of various kinds of damages, poisons, and wounds. But it is also quite normal for the coding authority to give these characters many other abilities, to do damage and engage in combat, for example. However, the collective will of the users may impose a much more restricted set of abilities on such characters. It is not uncommon, in my experience, for healing characters to be literally forced to use only their healing abilities when teamed up with other players. Healing is much desired and in very short supply (it is an altruistic thing, in a sense), so healers who attempt to do anything but heal are often subject to stigma and outright verbal abuse. If you even reach for your mace, the warrior shouts "DON'T FIGHT. JUST HEAL." Thus, while healers may have guns and fireball spells, they can't use them, because of the stigma that attaches. And none of this is in the official rules of the game. It is a social convention, an institution. Thus the rules of the game involving what a character labeled "healer" can and cannot do are not determined only by the code of the world, but also by the norms of the users. And this is no surprise; game players are humans, and humans always extend the set of formal laws with a set of equally powerful informal norms.

The institutions of synthetic worlds, their culture of play, are really no different in their essence from the culture of play in our world, and thus it is apparent why their effects cannot be contained in cyberspace: institutions always affect one another, and these effects can cross the synthetic divide as long as people do. Of course you could argue that the whole point is ridiculous, that because the synthetic world is a fantasy world, a game, no norms or laws can exist there. Yet we have seen in chapter 2 that these places are considered quite real by the people who go there, and that these people are not children by any means. Perhaps the synthetic world is a game; but then, our world is a game too. There's really no difference. If everyone thinks a certain piece of money has value, they will treat it as a valuable thing, and therefore it will have value. When I hand someone a worthless old scrap of paper that says "\$1," she will give me something valuable—a Coke—in return, because of the institution of money. And it is the institution, the patterns of behavior, that actually gives the dollar bill its value; the government has little to do with it. The very same institution gives gold pieces value inside synthetic worlds: when someone gives Sabert a gold piece, he knows he has received something of value. Similarly, the same institutions that make norms effective in the real world make them effective in the synthetic world. In general, the forces that create and evolve institutions are human social forces, and they will operate the same way whether the humans find themselves on Earth or on some cybernetic version of Pluto.

## A Taxonomy of Worlds

The first thing to notice about the institutions that have evolved inside synthetic worlds is that they are many and richly varied, perhaps enough to constitute a legitimate culture of their own. Living in a synthetic world takes some getting used to; everything from language to the courtship ritual is different. In order to summarize this institutional pattern efficiently, it would be useful to give an overview of world types.

One dimension is the size of the user base. Some synthetic worlds have few players (8–12), while some have "massively" many (in the millions). On a second dimension we have the question of what the players do; some worlds are about role-playing games, others are about shooting, still others are about peaceful social interaction. The game industry has terminology for all of these categories: for example, in addition to MMORPGs, there are FPSs, or first-person shooting games; and there are other worlds without role-playing or combat that could be referred to as "social games." A third dimension involves the presence of AI; some synthetic worlds have no AI, others have many mobs (monsters) and nonplayer characters (NPCs).

A world can score high or low on any of these dimensions; the last two, especially, impose significant costs on the developers. For example, purely social worlds typically consist of beautiful landscape and lovely avatars, and they give users the ability to manage their in-world communications and contacts in a number of ways. There is little content and usually no AI, however. The users must entertain themselves with whatever activities, conversations, and toys they can come up with. Often, such a world gives users the ability to expend their own time to make new things, meaning that content appears in the world but only because it is generated by the users, not the developers.

Add content and AI to a social world and you have MMORPGs. The content is in the form of buildings, quests, puzzles, challenges, and interaction structures (clubs, battles, markets, and so on). Much of the content is regulated by AI, in the form of monsters, merchants, and quest-givers. Some MMORPGs are heavy on content while light on AI; there is a big world to explore, but only a few bots to contest it. Others are heavy on AI and light on content; there are many critters but the world is small and players are expected to entertain themselves primarily by fighting one another endlessly.

At the other end of the spectrum are FPS worlds, which typically have few players (8–30) with little persistence in population across time. Players enter the world and fight a quick, decisive battle. The playfield is small (the size of an office building) and it remains the same, but the players change with each new

game. There is no AI and very little content in these worlds, besides the playing area itself.

In what follows, these three canonical game types (large role-playing, large social, small shooter) will dominate the discussion. First, in the section that follows, I will discuss the kinds of institutions that have emerged within the different kinds of worlds, and then, in the section after that, I'll describe how these institutions blend into real life. The chapter will conclude with an effort to predict how institutions may change as the industry matures.

### Crafting the Social World

Although the people who design synthetic worlds—the usual term in the industry is “game designer,” but not all virtual worlds have games in them—have a great deal of power to structure the institutions that emerge within their worlds, that power is not unlimited. On the other hand, the coding authority certainly has more power than Earth's governments do. It has tools at both the micro level to affect choices and at the macro level to induce institutions.

Let's explore some of the tools that developers have discovered for creating their new societies. Beginning with the simplest worlds, small-population shooters, all that a developer has to do is create a combat system within a set of physical rules. They typically also design a set of standard maps with terrain to fight over, but commonly the terrain-building code is released and third parties also design maps. The net result is that the FPS worlds have very little content and no AI. The society that emerges is correspondingly bare-bones. Friendships might develop if the same players go to the same map for repeated games, but there are no persistent assets that a player can leave in the world and nothing to do there except shoot at other avatars.

Social worlds are a significant step up in complexity. Here the developers provide a persistent terrain and rules governing the creation and maintenance of assets. They design an avatar-based communication system that allows people to send all kinds of messages to one another. The developers then step back and let the people who gather there provide the rest of the entertainment. Social worlds are usually built to a large scale and the emphasis is exactly the opposite of the small-scale FPS worlds: rather than join the world, fight, die, and join again, in social worlds the pattern is to join the world and just hang out. Players might spend their time building new things—a house, some object—or in more or less peaceful pursuits, like racing a car or exploring the terrain. Primarily, however, the world exists as a place for people to meet other people and talk to them.

I've heard social worlds described as “chat rooms on steroids,” and the description is not far off. With no danger, no lore, and no missions or objectives, social worlds don't seem to have any game elements at all, unless users make them. Indeed, the most forward-thinking social world, *Second Life* by Linden Lab, enables a scripting system that allows users to make any object desired. Some build homes, flowers, or motorcycles; others build games. In principle one could build an entire *EverQuest* style game within *Second Life* (and prototypes of such games have actually been completed). Social worlds do generate complex relationships, and they allow assets to persist, especially reputation. However, the developers, by design, leave the evolution of society almost entirely to the players, as with FPS games.

The highest level of structured social complexity occurs within the MMORPGs, places where danger, lore, and missions have been coded into the world from the start. MMORPGs rely heavily on content and AI to shape the society that emerges. And it is in MMORPGs that we see virtually all of the interesting social-shaping tools that developers have imagined. These tools try to address all the motivations that users might have for coming to these places. Returning to Bartle's player types of chapter 2: where FPS games satisfy the motives of Controller types, and social worlds satisfy the Socializers directly and the Explorers and Achievers to a lesser extent, MMORPGs seek to satisfy them all.

The ability of MMORPG content and AI to structure behavior and society can be demonstrated in a simple example. Suppose you are an explorer type; you like to look at new terrain. If you join an FPS world, you would be able to explore the available map area in a matter of moments, because it isn't very big. It still may take some time to explore—remember your avatar is constantly under fire because that is the entire purpose of the world. Take a few steps, die, re-enter the world, take a few steps, die, re-enter the world, die, rinse and repeat. Other than this, there's not much for an explorer to do in an FPS.

If you join a social world, there is usually lots of land to explore. Perhaps you start in a small village, where there are five people standing about. You chat for a while, then you go exploring; you climb the nearest mountain. There's no monster to bar your way, and, of course, there are no people up there; everyone's down in the valley, chatting. From that mountain, you see another mountain; you go to climb it, once again meeting no sentient beings, AI-driven or otherwise, on the way. And then you climb the next mountain, again seeing no sentients. And then you climb the next mountain, and the next, and the next. Lonely! See, since the social world is mostly about other people, the developers have not bothered to place NPCs or mobs or anything out in the wilderness to entertain you. It's just empty. For entertainment, you'll have to head to wherever the people are. So, tiring



of your solitude, you teleport yourself back to the village. You were able to teleport rather than run, because social worlds typically allow instant transportation—distance being a tremendous inconvenience when social interaction is the main idea. But when you get back to the village and start chatting, somehow you don't feel like you really explored anything. You can tell people that there are five mountains over yonder, but there really isn't any social use for that knowledge. None of you need anything from over there; the world is about chatting, and here you are in the village, chatting. Anyway, everyone could just teleport out there and back if they wanted to. And thus while there is more exploring to do here than in an FPS, it doesn't give the emotional high of real exploration. Nothing was discovered. All of the significant terrain is where people are, and once people are there, well, it's all been discovered.

Now let's say you join a MMORPG and try to explore. You start your character, and when it comes time to choose an occupation, you pick "scout." You enter the world in a village and chat for a while, then head off looking for mountains. Five steps beyond the village gate, some AI-driven animal devours you. You re-enter the world, return to the village, and find an NPC to help you. This is typically a mentor figure, a "Captain of the Royal Scouts," whose band you are said to have joined. This fellow gives you a quest, a job really, so you can earn some funds to buy armor or weapons. Having accomplished that, you leave the village again and, being more powerful, you protect yourself against the animal that ate you before. You get to the mountain this time, and there you find a secret cave filled with things of wonder. You head back to town—no teleporting here, you have to hoof it—and show some people what can be found in the cave on the mountain. They might be impressed; they might say, "We want some of that too! Let's go find that cave on the mountain!" And so you lead them there. Deciding to move on, you head for the next mountain and—a monster, one more powerful than the one before, comes by and eats you up again. To get to the second mountain, it seems, you'll have to become more powerful. To gain more freedom of movement in the world, you'll need to perhaps sell off some of the treasures from the first cave (perhaps that's why your colleagues were so interested). Thus, in a MMORPG, exploring is not just seeing new things; it involves managing resources to overcome challenges, for which the rewards are the new vistas. The MMORPG utilizes AI in heavy doses to make the satisfaction of the exploration motive, and any other motive, really, into a serious challenge. As a result, the exploring one does in a MMORPG comes the closest of any of the game types to satisfying our legitimate urge to explore new and exciting territories.

This example shows how MMORPG designers create a fun and challenging way for people to satisfy their exploration motive. It can be generalized. In brief,

the formula goes like this: Define a series of *roles* (such as "scout") for players to assume and use game mechanics (a set of options and consequences) and AI to get people into them. Establish an *advancement system* to reward certain behaviors (treasures in the cave that allow you to buy better armor). Generate *status inequality* so that the rewards matter (most villagers don't have treasure). Make sure the physical world has *risk and danger* (scout-eating monsters) so that the act of achieving is also challenging. Use scarcity and game mechanics to induce *conflict and cooperation* among players (scouts can buy armor from others, or steal it). Embed more subtle incentives through implicit *messaging* (the mountain looks beautiful). And finally, *personalize* the world so that it provides the right kinds of incentives to the right people (the world needs good exploring by people who are inclined to do that).

These tools did not spring out of the ground whole-cloth with *Ultima Online* in 1997; they are the product of gradual innovations in game design that date back to the early 1970s.<sup>2</sup> And they work. The combination of these effects produces a society with Earth-like richness and complexity, even though the objects about which this society dances are completely fantastical. Each will be described briefly below.

#### ROLES

Perhaps the most critical incentive structure comes from the "RP" in MMORPG, the role-playing aspect. The term refers to a class of pencil-and-paper games from the early 1970s, most notably *Dungeons and Dragons*. In these face-to-face role-playing games, each player around the table brings a well-developed alternate persona to all interactions with other players; it is, in essence, improvisational theater. I am not Castronova the Economist, I am Simpel, the powerful but absent-minded Wizard, whose spells sometimes go off in unexpected directions. Now, not everyone is a skilled extemporaneous thespian, of course, so this genre of games developed templates for people to follow. The attitudes, history, and typical choices of a Dwarven Warrior could be studied in books so that a player basically knew what to do when a moment of choice arrived. For dwarven warriors, tradition suggested that the right choice is usually "try to wallop whatever it is we are talking about." Aside from these general notions, role-playing games developed specific rules and game mechanisms to bend player choices toward in-character actions rather than out-of-character ones. Dwarves might be defined as inherently not bright and therefore capable of doing little but fighting, meaning, in most situations, that there is little else a dwarf can do for effect besides wallop the object in question. Once dwarves are defined in this manner, any player

choosing a new character takes into account the fact that playing a dwarf means you will not be casting spells, nor persuading opponents to surrender, nor charming them into friendship—you will be whacking them on the head. Moreover, in a computer game context, a dwarven warrior would be surrounded by AI that validates the warrior role. The in-game home of the character is a fighter's guild where courage and mead are both in more abundant supply than reason or subtlety. The warrior's mentors give quests that involve face-to-face combat. The warrior's companions tend to be not good at walloping, generating a need for his prowess at that act. The key effect of all of this walloping, glorification of walloping, and remuneration of walloping, is that dwarven warriors will tend to be played by people who feel comfortable walloping. In essence, the game mechanics utilize processes of self-selection to encourage players to take roles that suit them emotionally. The great joy in inhabiting such roles comes from the fact that almost all of us are playing a role right now that simply does not allow us to express many of the emotional roles we would like to. In my daily life I have to be a reasonable, subtle professor, but perhaps I, like you, may also have a side of me that gets a kick out of just walloping things. That makes dwarven warriors fun for me to play. Thus, even a group of amateurish actors can drive an interesting and enjoyable narrative; in tabletop role-playing, everyone gets to perform a role (if badly) that is fun for him or her.

When we move from tabletop role-playing to synthetic worlds, the palette of available roles expands dramatically. There are dwarven warriors, yes, but also various other kinds of fighters—thieves, rangers, beastmasters, archers, paladins, and so on. There are umpteen classes of wizards—enchanters, sorcerers, cabalists, magicians, summoners. There are roles for virtually any longing that a person can have. Want to be a musician? There are bards and entertainers of all kinds. How about a merchant? There are extensive opportunities for industry and trade; you can be an armor-crafter, a fletcher, an engineer, an architect, a jeweler, or a simple go-between. Missed your religious calling? Why not try being a priest, a cleric, a shaman, a druid, a prelate, or a confessor? No, you always wanted to be a surgeon—so try being a medic, a doctor, or a healer. And on and on. And this is just in high fantasy worlds. In other worlds, with other themes, there may be thousands of other roles to play: sniper, sous chef, gambler, samurai, suffragette, spaceship captain, terrorist, Emily Dickinson, octopus, cloud, trapezoid, borscht, you name it. Even “economist,” although I imagine few people daydream about that one. Considering all the games that are or may be, there seem to be roles for almost any kind of play-acting imaginable.

In each role and each game, things have been engineered to encourage self-selection into comfortable roles. If you want to be a cleric, you'd better be

happy helping others; you might be able to swing a sword or cast a fireball, but the mechanics of social interaction guarantee you won't be asked to do either. If you are a wizard, don't expect to be doing much hand-to-hand combat—you're designed to be old and frail, and you'll find yourself in trouble if something gets too close. The games have been coded such that the clerics one encounters tend to be helpful people and the wizards tend to be aloof, especially from anything messy.

While this role-playing mechanism was invented to assist little narratives in basement games, in MMORPGs it has an important immersive effect. A world of warriors and wizards and clerics who really act like warriors and wizards and clerics easily begins to feel like a world of, well, warriors and wizards and clerics. The warrior, wizard, and cleric go traveling together; a monster is encountered; the warrior attacks it, while the wizard defangs it with a spell; afterward, the cleric heals the warrior's wounds. The challenge is overcome through actions that are perfectly consistent with the roles that the players have assumed. And at some point, a person who repeatedly commits warrior-like acts becomes a warrior, in his own eyes and in the eyes of everyone he encounters. Thus, the mechanics of role-playing allow an entire community to mutually validate itself as a society of people who serve the functions defined by the game, even though, from an outside perspective, those functions seem fantastic.

But perhaps the most important effect of these synthetic roles is their influence on your own self-development. Richard Bartle argues in his book *Designing Virtual Worlds* that their core effect on a person is to aid in a journey of self-discovery. The steps in the journey are revealed by the roles you play. Perhaps you, a man, began playing as a male avatar. Then you switched to a female avatar, just to see. Then back to male. In the real world, nothing seems different. But you learned something, about the world, about yourself. Indeed, cross-gendering is incredibly common, and I can say from personal experience that it can dramatically affect one's perception of the game of gender as we play it here on Earth. If you're skeptical, buy a game and try it. You might be surprised how your thinking changes when your role is different.

Indeed, I've begun to wonder whether long-run changes in my avatar types reveal something about changes in my core personality. I have changed from playing healers and religious figures, to wizards, to scouts, and lately back to priests. I wonder what that should tell me about myself? Though there's clearly something Jungian going on, there are no therapists who know the answer, today; I doubt that many scholars of the mind are even aware that this psychologically powerful tool, the role-playing element in the MMORPG formula, has emerged.

## ADVANCEMENT

The second socially significant part of the MMORPG formula is advancement. An avatar is usually born weak and poor. Through achievements, the avatar gradually accumulates powers, either through wealth, an increase in skills, an increase in attributes, or an increase in general experience. The accumulation is done by a simple numerical rating system: my skill at Swimming starts at (1) and goes up to (2) or (3) or (300) after I swim for a while. The higher my Swimming skill rating, the faster my avatar swims. The MMORPG keeps a database entry for each avatar that stores numbers reflecting her wealth (gold pieces, equipment, buildings), her skills (Archery, Two-Handed Swords, Pottery), her attributes (Strength, Dexterity, Health), and an abstract concept called "experience points." Experience points are earned for accomplishments in the world, say, killing a monster or completing a quest. Kill the monster, and you receive 27 experience points. Retrieve the secret message from the spy and return it to your mentor NPC, and you receive 2,000 experience points. And so on. Once sufficient experience points are accumulated, the avatar will attain a new experience "level." The game mechanics reward players who attain a new level by enhancing their powers in some way—increased damage from spells, faster running, and so on.

To get above these details, however, advancement systems involve the enhancement of the avatar's physical or nonphysical capital as a consequence of specific actions. Physical capital includes things like money and armor. Nonphysical capital would be the experience points and skill ratings and attribute enhancements. The analog is to the economic concept of *human capital*, which refers to things like education and on-the-job experience that enhance earning power but are intangible and inalienable. Avatars aren't humans, of course, so we might call the accumulated experience points and skills and attributes *avatar capital*. Seen this way, advancement systems reward specific actions with increases in physical and avatar capital. They are a set of rules that allow people to make investments, investments whose returns are in the form of increases in their ability to see and do things in the world.

These rules and rewards are incredibly powerful tools for shaping behavior. Once players become emotionally committed to a synthetic world, their entire community will become focused on conquering the challenges that have been presented. Any object that assists in this effort becomes valuable in that society. If it is made powerful and rare, it will be a great treasure. This is how value is acquired by things like gold pieces and magic spells, which are nothing but bits of code that unlock abilities. Thus if we want society to value something, such as the plays of William Shakespeare, we should just build a synthetic world with

exciting challenges, and make it so that a mastery of Shakespeare is required to meet them. A world built on that premise could produce hundreds of thousands of new Shakespeare cognoscenti in the course of a few years. The advancement system can be used to induce a player's emotional investment in all kinds of actions. It can endow seemingly trivial and inconsequential acts—the slaying of a digital dragon—with significant personal and social consequences. Prestige shifts; alliances change; power and wealth flow in new channels; and, most important of all, people feel happier. In the historical record of MMORPGs, the willingness of people to acquire vast storehouses of truly arcane knowledge (the casting times of hundreds of spells; the order of birth of various gods; the number of iron ingots required to make a medium-quality dwarven hammer) has been demonstrated over and over. Advancement mechanisms turn the synthetic world into a place where value can be assigned to anything, and behavior directed accordingly.

In a typical MMORPG, the advancement system is designed so that each enhancement of the avatar brings that avatar to a new, tougher challenge. Climbing the first mountain generates experience points and treasure; the avatar rises from level 1 to level 2 and can buy some better armor. On returning to the first mountain, the avatar finds that the treasure is no longer there, and no experience points are awarded for climbing the same mountain twice. Therefore, it's off to the next mountain, which, as it happens, is higher, farther away, and surrounded by slightly more difficult dangers. After that mountain is a third one that is still a bit tougher. After that, a fourth, and a fifth. And so on. The vast scope of MMORPGs allows them to provide an incredibly long sequence of challenges; it is possible for a player to spend literally thousands of hours repeatedly overcoming tests and thereby being admitted to new ones.

The process is often described as a "treadmill," but in my view it is not as Sisyphean as that. Sisyphus, in the myth, is fated to forever struggle to roll a huge boulder over a mountain, yet each time, as he nears the top, the stone overcomes him and rolls back down into the valley. But in a MMORPG, the huge stone does not roll back down the mountain. No! The Sisyphus in a MMORPG gets the stone to the top and rolls it right over! Hurrah! But the stone does then roll down into the next valley, where it comes to rest at the base of a still taller mountain. As he walks to the stone's new location, Sisyphus notices that he's become stronger. And indeed, after great efforts, he is again able to roll the stone over this new, higher mountain. Hurrah again! And while the stone now lies at the base of a mountain taller still than the first two, Sisyphus again feels stronger. He can defeat the third challenge as he did the first and second, and will go on to defeat the fourth and the fifth and the sixth. With some perspective of course, it's clear



that Sisyphus isn't getting anywhere at all. And yet, this task is much more rewarding than his original one. There are moments of great achievement. Indeed, they repeat themselves at regular intervals. Sisyphus can see himself advancing in power, mountain by mountain. There's progress, a sense that he is actually getting something done, and flow, a sense that he is in control of a process whose outcome is not certain. Both sensations are quite pleasurable. If they were reinforced by roles and AI that help Sisyphus believe that the job is important and meaningful, he might approach a state of genuine happiness.

Indeed, MMORPG advancement systems are especially suited to restoring meaning to our activities, because they place our struggles in a context marked by the presence of other people. All players in a synthetic world will generally share some notions of what is important there, and will therefore deeply validate the emotions that result from the actions one takes. If I am a powerful character and I see someone struggling up the first mountain, I will recall with pride my own efforts there when I first started out. That new person may look at my shiny armor with envy, recognizing that I am a person who has been over this mountain and many others. Neither one of us has an incentive to invalidate the entire effort. Rather, given that we are both there climbing mountains, we will interact with one another on the basis of a shared understanding that climbing mountains is a valuable thing to do.

Yes, if one disbelieves the fantasy, the whole process may seem to be a meaningless treadmill, with no more of an outcome than that offered by a life of dull work on Earth. But what are the alternatives? The task as described in the original myth of Sisyphus is terribly frustrating. It would be almost as frustrating, horrifying even, to have the rock roll over the hill into an endless valley, where there were no more mountains to conquer. Game over—and nothing to do for the rest of eternity. A sequence of never-ending, ever-increasing challenges means a sequence of never-ending conquests and never-ending improvements, which may well be the sublime state even if there is no fantasy to make it seem meaningful. But why disbelieve the fantasy? If enjoying the Quest of the Rock requires a bit of mental effort, a bit of disbelief suspension, it is worth doing. It is especially sensible to do if the alternative is to labor endlessly on the demystified Earth, knowing that one is achieving nothing at all, never experiencing that moment when the stone rolls down the other side, never feeling one's muscles bulging with new strength. Between these alternatives, the choice is clear and sensible. In short, my guess is that Sisyphus would have gladly abandoned his traditional fate to advance himself in a MMORPG. The implications of this choice, which I'll take up in the last chapter, are potentially quite far-reaching.

It seems fantastic that a whole community of people would invest their emotions in such things. On the other hand, who would deny that the bouncing of little round balls on Earth can often make millions of people gasp, shriek, or break down in tears? Those little balls also affect finances and even health. You are perfectly free to declare that the World Cup is a silly game and does not matter, but if you do not have good insurance, I would advise you not to make such a declaration in a pub or kneipe during an England-Germany match.

#### STATUS

A third element in the MMORPG formula involves the distribution of status. In MMORPGs, people are not merely encouraged to be different—the role-playing system handles that—they are forced to be better and worse along a number of dimensions. The avatars all look different, but if you make yourself a dwarf, you're not going to be all that beautiful. Make yourself an elf, however, and you can have a truly stunning figure, and this may indeed affect your ability to find romantic partners. Similarly, if you accumulate piles and piles of money, the developers will make sure you have the opportunity to let others know. You can buy expensive things—houses, vehicles, shiny clothes. If you have power, say by becoming the leader of an important guild, you will be heeded by large numbers of other players, and you can literally lord it over anyone you like. In player-versus-player combat worlds, you can have weaker beings killed on sight. Even in peaceful worlds, you might order that no one from guild X shall have access to resource Y, and it would be so simply because of the influence you wield. Status inequality is hard to avoid in human systems in general, but in MMORPGs it is glorified.

The status distinctions found in synthetic worlds engage emotions that correspond to ones we have on Earth. There is plenty of saluting, groveling, and moaning going on. One is spurred to complete tasks of advancement not merely for their own sake, but because it will enhance one's social prowess. The effects on the psyche are much the same as they are when such things are accomplished in ordinary life: a sexual conquest, the receipt of new riches, and the thrill of crushing an opponent all can provide emotional highs. The critical point is that these status effects are in the world as an explicit factor of design; one could have made a world of androgynes, but having men and women who act like men and women is more fun—even if (perhaps especially because) the person and the avatar do not necessarily walk the same way. One could make a world of equal economic outcomes, but then what fun would there be in finding a bargain? What is a bargain, anyway, except a deal that is better than a deal that someone else got? In the end, MMORPGs

(like all video games) seek to create a stream of pleasant moments, and inequalities are apparently an inherent element of that. Humans seem to prefer the challenge that inequality represents rather than the security that equality affords—with one very important proviso: everyone's status at the start of the game must be equal. If (and only if) everyone starts with the same opportunities, the same amount of money (usually none), the same ability to choose roles and character types, then the resulting inequality is not taken to be unfair. Rather, status inequality happens because of the choices people make, and so long as everyone starts out with the same opportunities, the inequalities that choices create acquire the character of a fun game rather than a crushing of the spirit.

#### RISK AND DANGER

A fourth element of the MMORPG institutional system is risk. Violence plays a role in FPS games, but there is really no risk involved at all: if you die, you simply reappear moments later with nothing lost. In social worlds, there's no violence, no loss, no threats whatsoever. In MMORPGs, by contrast, almost anything one acquires can be lost: money, items, even avatar capital. Most MMORPGs have the concept of avatar death, with an associated death penalty. Usually death is not permanent—the avatar reappears at some other place, with fewer experience points, or lower skills, or a loss of capital. All of these things will take time to restore. It is as if the death robs the user of some of her precious time. The death indicates failure of the expedition, quest, or hunt; the Stone of Sisyphus has rolled back down into the first valley, and has to be rolled up again. The presence of these risks certainly intensifies the effect of the other incentive structures. When undertaking some venture, the player knows that failure may cause the loss of previously accumulated advancement or status. A player who has accumulated much has done so in the face of repeated risks of loss. The presence of danger further validates the accomplishment.

There are other forms of risk besides the mechanism of avatar death. Items may be lost or stolen. Assets may plummet in value, even avatar capital. If a new and better sword becomes available, the old sword that I have is not worth much on player markets. If the player community decides that a certain activity needs to be done with a certain set of avatar roles, and your avatar does not inhabit one of those roles, whatever skills she has may become worthless. "We need five warriors, one cleric, and no wizards for this job" means that wizards go unemployed and the rate of return to wizard skills is zero.

Risk and danger are effective in another sense: they are necessary as a way to validate players' resources and skills other than time. These are persistent worlds,

remember. If challenges imposed no risk of loss, even the most incompetent player could accumulate high status just by devoting immense amounts of time to the world. If buildings could not collapse, even the most careless architect could build the tallest building just by piling objects on top of one another for a very, very, very long time. Having a mechanics of loss guarantees that the mere investment of time is not sufficient to advance; doing a silly thing over and over will destroy rather than enhance the value of your avatar.

Risk also increases the immersion effect of the world, since one quickly and clearly perceives the (painful) consequence of some mistake. Worlds without risks, many players might say, are simply not real and not fun. But the deeper message is that risk strengthens the formation of other institutions within the synthetic world, making status and advancement and roles much more emotionally compelling.

#### SCARCITY AND FORCED COOPERATION

The fifth element of MMORPG institutions is scarcity, which is similar to risk. While one could make all activities and resources equally available to everyone, this would surrender an important source of player incentives. By making sure that content and activities are scarce, developers can guarantee that the players must either cooperate or come into conflict over them. In Eden, Adam and Eve can get along or ignore one another as they wish; they have no reason to *hate* one another, but they don't *need* each other either. Outside of Eden, everything is different. There, humanity's love-hate relationship with itself can truly blossom. A MMORPG could be built on the basis of Eden, but there would be little in such a place (aside from mutual attraction) to bring the sons and daughters of Adam and Eve together: if everything is free, why bother interacting with anyone at all?

MMORPGs use scarcity of resources and game mechanics to replicate an out-of-Eden experience, a place where love-hate relationships among players are born. Resources are usually made available to anyone who has advanced sufficiently, but that can mean that there are hundreds of people competing for them. Eligible players can either cooperate and share a resource, or fight over it.

Social institutions, some of them explicitly designed by the coding authority, tend to support player cooperation rather than conflict, on numerous levels. Players can typically form themselves into guilds, and guild-level negotiations often determine who gets a resource and when. While guilds have 50–200 members, smaller associations are also possible. Most games have group-hunting mechanisms that allow 5–10 players to form ad hoc adventuring parties. Above



the guild level, large raiding parties and armies may form to achieve one objective; again, there are often game mechanics that allow army leaders to exercise command and control over the group.

Most MMORPGs give players strong incentives to adapt to these grouping structures to some degree. At the level of the individual adventuring party, the roles of the avatars may be designed so that no one player can accomplish things alone. Warriors may need wizards and vice versa. At higher levels, certain resources may not be accessible unless one has the help of an army. Outside the realm of combat and adventure, group structures give players access to markets and opportunities to socialize.

What if a player does not like the available groups? The game mechanics tend to ensure that players who don't get along also never achieve much in the world. This, like risk, is another way to ensure that mere time is insufficient to succeed at the game; you must also be able to integrate yourself socially.

And that, in turn, generates perhaps the most important effect of scarcity: reputational capital. Since everything is not free, and since you need other people to get the things you want, you had better behave.<sup>3</sup> If you don't, none of the other users will help you get what you want. It is interesting that MMORPGs are filled with various grouping mechanisms but have no explicit justice systems or governmental structures. A state of anarchy seems to be preserved as a conscious choice of the developers, so as to give maximum possible scope to reputation systems and the informal norms they support. Much research in political science validates this strategy (Ostrom, Gardner, and Walker 1994; Kollock 1996): reputation and norms are often more powerful than law. What law there is, is in the form of customer service representatives, whose unhappy job it is to intervene in particularly bitter fights among players. Truly nasty players can be banned from the world, but this seems comparatively rare. Indeed, customer service representatives are pretty rare. Labor is expensive; most developers would prefer that the player community regulate its own conflicts.

As a result of this decision, players in MMORPGs are thrown into a social environment with a truly unprecedented level of cooperation, with attendant effects on their behavior (Kollock 1999a). Anyone who wants to do anything usually has to learn how to cooperate. Think for a moment how different this is from social life in contemporary postindustrial communities. For the most part, we sit in our homes and watch TV. At work and school, we complete individualized tasks to receive an individualized compensation. We change residences and jobs and even families with such frequency that there is little point in maintaining a reputation, and doing things with other people in groups is becoming more and more rare (Putnam 1995). True, there are many situations in which teamwork is necessary,

but these situations used to dominate social life only a few decades ago. At the start of the twenty-first century, the town square is empty, and barn-raising is a do-it-yourself affair. In the face of this extreme level of social isolation, some people now congregate in online worlds, where Society matters once again. There, people are thrust into countless cooperative ventures and find themselves unable to perform the most rudimentary tasks without the help of others. All of this is *by design*; the worlds are this way because people want them to be this way; they enjoy working with others.

#### MESSAGING

A sixth form of social institution in MMORPG design praxis is more subtle, involving the implicit messages that design decisions send. In the time-tested tradition of advertising, it is possible to embed messages in the very structure of the world, messages that are not really seen or heard but that become implicit in the way things are. Consider, for example, the fact that most MMORPGs code male and female avatars to be different in appearance only. Typically there are no differences whatsoever in what male and female avatars can do. On the other hand, female avatars are often depicted as much more sexualized beings than males, with costumes that exaggerate the stereotypical features of female eroticism. Similarly, avatars who are said to be wise are usually not depicted as being robust, whereas the warrior-like and courageous types typically do not wear markers of sensitivity. The designers are saying something—something fairly obvious in the case of male-female avatar differences—without using words at all.

Are these choices conscious? They derive from a cultural milieu of fantasy fiction and comic books that dates back to the 1950s. At times it seems that this project wants to overturn a number of social mores, at other times it seems to only perpetuate the common practices of contemporary society. As a Roman Catholic, should I be gratified to see that the concept "religious place" in many of these worlds seems to derive entirely from the great Catholic church-building project of the High Middle Ages? How wonderful it is to enter a building labeled "cathedral" and see massive pillars, lofty arches, and the glorious serene space between them. On the other hand, where is Jesus? Or God, for that matter? The cathedral's message seems to be, "Praise something: Whatever you want, it's up to you." On the other hand, many games have a pantheon of deities representing all kinds of good and evil qualities, and the religious places might be infused with a symbology referencing a specific deity. Still, what is the message behind the fact that a person can worship a God of Evil in a Temple of Evil that looks somewhat like the Cathedral of Rheims?

In my experience, the embedded messages seem to be consistent with the norms of the society that emerges, but it is not clear that the messages actually induce the norms. Rather, since MMORPGs are profit-seeking entities, it seems likely that the embedded messages are designed to make the world comfortable to as many people as possible. This certainly explains the presence of a Temple of Evil. It's not there because the developers are trying to say that Evil is a relative concept and there is no right or wrong. It is there because players want to be in a world where Good and Evil clearly exist and are clearly in opposition. Many players enjoy acting like evil people; it's a nice break from having to be good all the time, and it also seems to speak to some deep-seated awareness of our own tragic imperfections. Moreover, while labeled "Evil," these people usually are civil, even polite. Virtually every "evil" person I have encountered has a story of how they are really very good, but some disaster or spell or betrayal made them go over to the darkness. The MMORPG allows them to go over and revel in the nastiness that is unfortunately part of the human condition, and to do so in a way that actually helps others. A world that includes self-proclaimed and loudly advertised Evil people running about represents a great boon to those who are hungry to fight for the Good. Without Evil people, who could be Good? The implicit message behind the Good and Evil roles in MMORPGs is a rather dramatic rejection of the notion that Good and Evil don't exist. This kind of embedded messaging is yet another source of emotional satisfaction that the world provides.

At the same time, embedded messages do reinforce the norms of the community. Male and female avatars have the same skills but different and, in the case of females, highly erotic bodies; evidently it is expected that men and women should be able to do the same things, but also that they will be having sex with one another from time to time (with a female-as-object dynamic, apparently). Good and Evil are coded into the world, so it is expected that concepts of right and wrong will be applied to actions.

Perhaps the most subtle message in these worlds is that people need one another's company, meaning, it is expected of everyone that they be willing to talk to strangers and possibly become friends.

#### PERSONALIZED CONTENT AND AI

A final society-building incentive structure worth noting is the ability of the coding authority to provide specific game mechanics that satisfy a player on an individual level. Often this is accomplished through the role-playing mechanics—if I choose to be a warrior, I will be confronted with monsters, mentors, and missions that validate me in that role. Or it might be independent of roles, as in the

case of "instancing" content. Instancing occurs when a player triggers the creation of content that is accessible to her and no one else. For example, she may request a mission from an NPC, and the NPC may generate a new dungeon for which only she has the key. At this writing, personalized content is rare relative to communal content, but it is likely to grow in importance as the size and capabilities of world engines grow.

Of course, if the synthetic world was nothing but personalized content, it would be, in effect, our world of social isolation, a lonely single-player game. Because of this, personalizing the content will always be a limited aspect of synthetic world game design. Still, it plays an important role because it allows the world to provide the player with experiences that other players will not have. Even with all of its powerful incentive structures in place and operational, the resulting society may simply fail to provide a particular emotion that the player wants. Not every good feeling derives from society; even the perfectly crafted society will leave us wanting to do some things on our own. To meet that need, most synthetic worlds try to allow some scope for completely individual actions and rewards.

Validating individuals as individuals, in a group context, is a very tricky problem. Take, for example, advancement and status. It feels good to make achievements, accumulate powers, and wave status symbols around. The effect is lessened if everyone else has accumulated the same powers and has been waving the same status symbols around for some time. This isn't just a problem in MMORPGs, it is a core paradox of all human achievement systems: once everyone memorializes himself with a nice headstone, the cemetery becomes a vast field of headstones and no one is memorialized at all. If some status is defined as special, but then given to everyone, no one is actually special. If there are limits on achievement, on the other hand, then some people will be more special than others, creating an emotional burden for those who are left out. As game designer David Rickey reminded us in chapter 2, only 10 percent of the people can be in the top 10 percent along any dimension. How do you make a world in which everyone is in the top 10 percent?

The answer: AI.

With AI, all people in the world are equal, but some people, the player avatars, are more equal than others—specifically, the nonplayer avatars, the AI-driven robots. Players can be allowed to garner all the important achievements, while bots occupy the other 90 percent of the prestige distribution. With enough personalized AI, all of the player avatars can be in the top 10 percent; they all can be made to feel more equal than others. To give a personal example, I will never have as much time for synthetic worlds as, say, a 25-year-old unmarried corporate trainee, because I have other obligations that he does not. Relative to him,

I will never be as rich or powerful in the synthetic world. If he and others like him are my only point of comparison, it will seem that I cannot attain a respectable status in the world; I can't succeed or "win." Still, I can be made to *feel* as though I've won if I do acquire some wealth and power, and if the NPCs then treat me like a rich and powerful person. Thus even if I only attain level 40 in a 65-level game, and even though most other players consider my accomplishment pitifully mediocre, all the NPCs in the world speak of me as a true hero, and man of many accomplishments, a winner. The NPCs form the peer group that puts me on top. True, today, AI delivers these messages in a rather cloying and less than credible way. Nonetheless, this will probably resolve itself into mature respect and admiration as AI advances.<sup>4</sup> Better AI, more than anything else, can help overcome the paradox of a world where everyone wants to be a hero at the same time.

In principle, we can look to AI to contribute any kind of relationship that real people will not. Wouldn't we all like to have a close but subordinate companion, a Robin to our Batman, a page to our Jeanne D'Arc? That's probably why people buy cats. AI pets fill a similar role, except that they can talk and they don't make the mess that cats do. Many people have absent parents. For them, mentoring bots, if designed with suitable sophistication, might fill the gap. That is, they would fill the gap not in the sense that AI will replace fathering, but in the sense that the things a mentor bot says and does will make a father-hungry person feel good. Or this: Wouldn't it be interesting to have a foil, a person who always cooks up new schemes against us, only to be defeated again and again? AI could provide each player with such a personalized enemy. It could provide everyone with a romantic partner, although the long-run consequences are worth thinking about. Personally, I would like to have a home town. AI could do it: Make a place filled with people who are always there, and let me start and end all my adventures there so that I get to know the place well. Let it be my place, so that the people of the village treat me as their favored son. And then let me protect them from dangers and bring them the treasures that heroes bring. Then I would have the feeling that there is one place in the Universe where everyone knows my name and thinks well of me. Like many others, I am a person who might find a relationship with AI quite beneficial.

All of the roles just discussed can be filled by other people in daily life, but it does not always happen in the way desired. Real people won't generally consent to be your assistant superhero forever, but an AI pet will. Real father figures will demand authority, but mentor bots won't. A real human foil can be a serious pain in the neck, but an AI foil can be coded to lay off when he becomes too much of a nuisance. The difficulties of finding good romantic

partners need not be expostulated. People in real small towns don't take kindly to itinerant saviors, but well-coded villagers could be more accepting. In this sense, AI can provide some experiences that the social environment on Earth does not.

In sum, the evolution of game development craft has now provided us with a wide variety of tools for building social institutions. These tools have emerged as answers to the knotty problem of creating a place that people like to spend time in. That being the case, it is little wonder that the worlds we build are emotionally enriching, and therefore blend into other parts of our lives.

### Blending the Play Space

The designed social institutions of synthetic worlds do indeed have an effect on life outside, if only because it is impossible not to compare their emotional effects to those produced by their equivalents on Earth. The locus of play cannot be contained within the game world itself. Invariably, an entirely separate forum of human interaction grows up around the virtual world, and the struggles and relationships that are generated within the world inevitably bleed over into struggles and relationships outside the world. This general statement is true for literally any domain of human activity that one can name.

Consider, for example, the basic relationships among people. In all synthetic world games, it is common for people inside the game to form into parties of 5–10 people to go do things, like hunt monsters or chat. They trade with one another and give and receive charity. They make long-run friendships. They also tend to play with friends they have met outside the game, as well as siblings, parents, children, and romantic partners. Players organize regular fan meetings to supplement their online friendships with face-to-face contact. Over time, their connections inside the game blend into connections outside of it. The community of users ends up being a community that exists inside and outside the synthetic world at the same time.

There are many other examples of this kind of blending, as the following list, in no particular order, shows.

**Group formation.** Aside from the hunting or chatting parties, people inside games may form themselves into larger organizations, known as guilds. These are managed by players. Most guilds maintain websites outside the game, where the in-game conversations continue. Guilds also hold Earthbound meetings and attend fan meetings and such.



**Conversation.** Inside the game, conversation is usually done by chat. The conversations continue outside the game, however, via instant messaging, email, forum posting, blogging, telephone, and most recently voice over Internet.

**Events and social happenings.** Inside the game, people hold parties, weddings, and dances. People who meet in the game might meet or even get married outside it. Fan gatherings are surrounded with celebratory events. When a player dies in real life, memorials are held in his honor. In the aftermath of the September 11, 2001, attacks on New York City, several synthetic worlds had spontaneous, player-run candlelight vigils.

**Politics.** Inside the game, guilds find themselves negotiating with other guilds about conflicts of interest. Conflicts between players are sometimes refereed by customer service representatives, put in place by the coding authority for just that purpose. The conflicts that result are often continued on website message boards and in emails among the parties. Mass political statements are made in the game—for example, protest marches to demand a change to some rule. Efforts to change the rules also take the form of petitions and letter-writing campaigns to the coding authority outside the game. The discussion forums at fan sites dedicated to the game are often an incredibly heated arena of intense discussion about the rules of the game. It is forbidden, but not unheard of, for players to protest policies of Earth governments in game chat.

**Economics.** Inside the game, players work, make or earn things, sell things for cash, and use the cash to buy other things. Outside it, they buy and sell game items on eBay for real money. A dollar exchange rate for most game currencies is established within days of the game's release. I have witnessed auctions for items and services on sale as many as three weeks before a game's release date. Successful auctions can earn thousands of dollars for the seller. eBay's Category 1654, Internet Games, attracts millions of dollars annually in trade for virtual swords, virtual houses, virtual money. And this is only a small fraction of total trade; Asian synthetic worlds are far larger than those in the United States, and I suspect that the amount of external trading they generate is similarly larger. In all, it would not be surprising to me if, by the time this book reaches the press, the global real-money trade in virtual items topped \$100 million annually. And proprietary, unpublishable data from inside the worlds indicates that the in-world trade dwarfs the out-of-world trade by a factor of 20. This means that the global sum of trade in virtual items, at markets within and without the worlds themselves, may be as much as \$2 billion. If this figure grows, it could begin to have effects at the macroeconomic level in real countries.

**Culture.** Game worlds are riddled with symbols, ritual, and language. At fan meetings, one sees how symbols have been woven into the lives of the players by being applied to their clothing and equipment. Meanwhile, the rituals of Earth bleed into the game world; the solemnities of September 12, 2001, followed standard Earth forms, even though the environment was decidedly un-Earthlike. Common game usage—"u r teh suxx" means "you stink," roughly—are carried over to email, discussion boards, and general conversation. Indeed, the language of the games is intimately interwoven with the evolution of spoken language across the world. When I receive an email from a student that asks "r u going to lol when i tell my joke?" I know she is asking whether I am going to laugh out loud when she tells her joke, and I only know this because the language conventions of synthetic worlds have entered real-world dictionaries (see <http://www.bartleby.com/61/41/L0234150.html>).

**Violence; conflict; crime.** In-game, players hunt monsters and, if the rules allow, they hunt one another. They duel. They meet in arenas to fight for show. They steal too. All of these forms are borrowed from the Earth. On the other hand, some in-game vendettas have turned into out-of-game attacks, even murders. And stealing in-game results in permanent difficulties between players on the outside. Player combat can become a spectator sport as well. Korea has an entire television channel devoted to gaming coverage (Herz 2002). Screenshots and movies are made of in-game action for out-of-game viewing.

**Sociology.** Norms form in-game and they are expected to be held out-of-game too, on discussion boards, at fan gatherings, and so on. Roles are defined inside and outside the game too.

**Solitary activities.** Even time spent alone induces blending along the synthetic boundary. Inside the game, one goes exploring, undertakes challenges, inquires and learns about the world. Outside the game, one goes to websites to learn still more, or one buys book-length guides to the games. A not-insignificant amount of time may be devoted to simply planning and coordinating one's time in the game. This can involve planning a large-group activity (hunting a dragon) or simply planning one's own strategy (deciding which skills to enhance first). And I have to admit, when I first began to spend significant amounts of time in synthetic worlds, I often had the eerie feeling in the real world that the people passing by were really nothing more than avatars, just vehicles for the mind of a real person whose true location and condition I could never know.

**Sex.** You get the idea.

I could continue, but the point is made. Everything that people do in the synthetic world has some effect in the real world as well. The transference is so prominent and frequent that the in-game language has even developed the abbreviation "rl," for "real life." As: "i cant join the castle raid i have a family thing in rl." All users of synthetic spaces face the task of integrating the experiences they have there in their "rl," and as a result the institutions, culture, and patterns of behavior formed inside the world tend to have some kind of influence outside it.

### Evolution of the Rules

As one surveys the amount of outside influence synthetic worlds have—significantly changing the real-world institutions that some 10 million people or more are involved in—it becomes evident that this is quite a powerful toolbox. Think of it. Here is a form of practical art, a design skill, that can build places whose effects radiate outward into the daily lives of millions of people. Those who are hungry for connection go there to find groups to join. Those hungry for a sense of mission go there to accomplish things. Those who feel trapped go there to explore. Those who feel dominated by their environment go there to make a difference. A breathtakingly complex system of game mechanics and AI programs provides the user with experiences not available elsewhere. It does this by forming the community of users into a society that does things our Earth society does not. It also provides users with content and AI-based relationships that are hard to find on Earth. In all these ways, synthetic worlds provide users with emotions that can be both good and bad, much like art or any other form of constructed experience. Unlike these other forms, however, synthetic worlds powerfully validate these emotions, by creating them in a community of like-feeling humans.

Given their emotional purchase, it should be no surprise that the social environments within synthetic worlds have begun to meld into the social environment of the Earth. No frontier is truly separate from its homeland; one dramatically affects the other. The rules of the game in synthetic worlds serve only to create a certain kind of society. When that society interacts with the society of Earth, which operates under its own set of rules, the rule sets of both systems begin to change and adapt, as institutional theorists would predict. How the rules evolve will determine what role synthetic worlds will play in the daily lives of people.

It is very hard to predict how MMORPGs and other synthetic worlds may change as they become more popular and more socially salient. Will the core

formula of roles, achievement, status, and so on be altered? Or will there always be worlds that offer the basic formula, while other worlds offer something different? It is also entirely fair, indeed incumbent upon us, to ask what kind of worlds there *ought* to be; synthetic worlds are a powerful enough force that they warrant some attention by ethicists and policy experts. Now that this world-making toolbox exists, what should we do with it?

At the moment, however, any questions about the future of synthetic worlds are going to be resolved not by ethical considerations but by profit margins. These places, so far at least, have only been built by private companies, and therefore the synthetic world is going to evolve exclusively according to market forces for the medium term. In order to have a better sense of those forces, the next chapter gives an overview of the supply side of the market for synthetic worlds, the companies and practices that generate the worlds in which these new institutions emerge.

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