



Living a Second Life

SAN FRANCISCO

A Californian firm has built a virtual online world like no other. Its population is growing and its economy is thriving. Now politicians and advertisers are visiting

PETER YELLOWLEES, a professor of psychiatry at the University of California, Davis, has been teaching about schizophrenia for 20 years, but says that he was never really able to explain to his students just how their patients suffer. So he went online, downloaded some free software and entered Second Life. This is a "metaverse" (ie, metaphysical universe), a three-dimensional world whose users, or "residents", can create and be anything they want. Mr Yellowlees created hallucinations. A resident might walk through a virtual hospital ward, and a picture on the wall would suddenly flash the word "shit-face". The floor might fall away, leaving the person to walk on stepping stones above the clouds. An in-world television set would change from showing an actual speech by Bob Hawke, Australia's former prime minister, into Mr Hawke shouting, "Go and kill yourself, you wretch!" A reflection in a mirror might have bleeding eyes and die.

When Mr Yellowlees invited, as part of a trial, Second Life's public into the ward, 73% of the visitors said afterwards that it "improved [their] understanding of

schizophrenia." Mr Yellowlees then went further. For about \$300 a month, he leases an island in Second Life, where he has built a clinic that looks exactly like the real one in Sacramento where many of his students practice. He gives his students "avatars", or online personas, so they can attend his lectures inside Second Life and then experience hallucinations. "It's so powerful that some get quite upset," says Mr Yellowlees.

Second Life, as Mr Yellowlees illustrates, is not a game. Admittedly, some residents—there were 747,263 as of late September, and the number is growing by about 20% every month—are there just for fun. They fly over islands, meander through castles and gawk at dragons. But increasing numbers use Second Life for things that are quite serious. They form support groups for cancer survivors. They rehearse responses to earthquakes and terrorist attacks. They build Buddhist retreats and meditate.

Many use it as an enhanced communications medium. Mark Warner, a former governor of Virginia who is considered a possible Democratic candidate for presi-

dent in 2008, recently became the first politician to give an interview in Second Life. His avatar (also named Mark Warner) flew into a virtual town hall and sat down with Hamlet Au, a full-time reporter in Second Life. "This is my first virtual appearance," Mr Warner joked, "I'm feeling a little disembodied." They then proceeded to discuss Iraq and other issues as they would in real life, with 62 other avatars attending (some of them levitating), until Mr Warner disappeared in a cloud of pixels.

By emphasising creativity and communication, Second Life is different from other synthetic online worlds. Most "massively multi-player online role-playing games", or MMORPGS (pronounced "morp-egs"), offer players pre-fabricated or themed fantasy worlds. The biggest by far is "World of Warcraft", by Blizzard Entertainment, a firm in California, which has more than 7m subscribers. These worlds are the modern, interactive, equivalents of Nordic myths and Tolkien fantasies, says Edward Castronova, a professor at Indiana University and the author of "Synthetic Worlds: The Business and Culture of Online Games". They allow players to escape into their imaginations, and to take part by, say, joining with others to slay a monster.

Making, not slaying

Second Life, by contrast, was designed from inception for a much deeper level of participation. "Since I was a kid, I was into using computers to simulate reality," says Philip Rosedale, the founder of Linden Lab, the San Francisco firm that launched »

Second Life commercially three years ago. So he set out to construct something that would allow people to "extend reality" by building a virtual version of it, a "second life" not unlike that envisioned by Neal Stephenson in "Snow Crash", a science-fiction novel published in 1992.

Unlike other virtual worlds, which may allow players to combine artefacts found within them, Second Life provides its residents with the equivalent of atom-small elements of virtual matter called "primitives"-so that they can build things from scratch. Cory Ondrejka, Linden Lab's product-development boss, gives the example of a piano. Using atomistic construction, a resident of Second Life might build one out of primitives, with all the colours and textures that he would like. He might add sound to the primitives representing the keys, so the piano could actually be played in Second Life. "Of course, since these are primitives, the piano could also fly or follow the resident around like a pet," says Mr Ondrejka.

Because everything about Second Life is intended to make it an engine of creativity, Linden Lab early on decided that residents should own the intellectual property inherent in their creations. Second Life now allows creators to determine whether the stuff they conceive may be copied, modified or transferred. Thanks to these property rights, residents actively trade their creations. Of about 10m objects created, about 230,000 are bought and sold every month in the in-world currency, Linden dollars, which is exchangeable for hard currency. Linden Lab estimates that the total value (in "real" dollars) this year will be about \$60m. Second Life already has about 7,000 profitable "businesses", where avatars supplement or make their living from their in-world creativity. The top ten in-world entrepreneurs are making average profits of just over \$200,000 a year.

Second Life's total devotion to what is fashionably called "user-generated content" now places it, unlike other MMORPGs, at the centre of a trend called Web 2.0. This term usually refers to free online services delivered through a web browser-for example, social networks in which users blog and share photos. Second Life is not delivered through a web browser but through its own software, which users need to install on their computers. In other respects, however, it is now often held up as the best example of Web 2.0. "It celebrates individuality," says Jaron Lanier, who pioneered the concept of "virtual reality" in the 1980s and is now "science adviser" at Linden Lab. And it connects people, he says, because "the act of creation is the act of being social."

The Web 2.0 crowd also extols Second Life for its highly original business model. Most Web 2.0 firms try to build audiences



Endless possibilities: Donna Meyer, a grandmother from New York, and her avatar

around user-generated content in order to sell advertising to them. This assumes the availability of unlimited advertising dollars, a notion that is increasingly ridiculed.

Linden Lab does not sell advertising; instead it is a virtual property company. It makes money when residents lease property-an island, say-by charging an average of \$20 per virtual "acre" per month. Only about 25,000 residents, or about 3% of the population, lease property, but that already amounts to 53,800 acres, which, in real life, would be bigger than Boston. This works out to monthly revenues of \$1m, not counting the commissions that it takes on currency exchanges between Linden dollars and hard cash. As a private company, Linden Lab does not disclose its exact revenues, although Mr Rosedale says the firm is "close to profitability".

A common reaction to such numbers is astonishment that anybody should pay anything at all for something that exists only in a metaphysical sense. But "there's actually no economic puzzle in this; all kinds of things derive their economic value only from the realm of the virtual," says Indiana University's Mr Castronova. The American dollar, for instance, is virtual (aside from the value of the paper used for the bills) in that it requires consumers to have faith in its worth. In the context of online games, virtual economies much bigger than Second Life's have existed for years. Many people in poor countries, called "gold farmers", play games such as "World of Warcraft" professionally to score weapons, points or lives to sell to lazier players in rich countries. But Second Life is unique in that residents conceive what they sell. As such, says Mr Lanier, it is "probably the only example of a self-sustained economy" on the internet.

For all these reasons-its ability to

change the real lives of its residents, its innovations in technology and in its business model-Second Life has become a darling of Silicon Valley. It promises to be "disruptive", says Mitch Kapor, the inventor of the Lotus spreadsheet that played a big role in the personal-computer revolution of the 1980s and 1990s. He is now chairman of Linden Lab. To him, Second Life is comparable to both the PC and the internet itself, which started as something "quirky" for geeks, and then entered and transformed mainstream society. "Spending part of your day in a virtual world will become commonplace" and "profoundly normal," says Mr Kapor. Ultimately, he thinks, Second Life will "displace both desktop computing" and other two-dimensional "user interfaces". As "a hot-house of innovation and experiment," he says, Second Life may even "accelerate the social evolution of humanity."

Back to this reality

It is bold and early to make such predictions. After all, Second Life is still a relatively small virtual world-only about 9,000 residents are usually logged in at any one time, for example. About two-thirds create content from scratch, but mostly they customise things that they find or browse passively. And a lot of the wares on offer are banal. Whereas a few residents choose very innovative bodies for their avatars, most have shapes, male and female, that hew to the default templates and look, predictably, like cosmetically enhanced porn stars. Among the artefacts, there is some genuine art but quite a bit of junk.

Is Second Life a nirvana where unknown talent can prove its creative mettle and make it in the real world? "You can create your own island and people come

to it," said Bill Joy, a co-founder of Sun Microsystems and now a prominent venture capitalist. But "I don't see any correlation between that and what it's going to take to be a designer and have a skill set to succeed in the world."

Mr Castronova also cautions against overestimating the depth and breadth of Second Life's economy. Yes, people do create clothes and games and spacecraft in SecondLife and then sell them. But most of the big money comes from the virtual equivalent of land speculation, as people lease islands, erect pretty buildings and then rent them to others at a premium. Tongue in cheek, Mr Castronova compares Second Life's in-world boom to America's house-price bubble. In artistic terms, there is not always much difference between building an in-world house and designing a personal web page.

There are also stirrings of discontent among some of the "older" (if one can use that term in a three-year-old metaverse) and more purist residents of Second Life about what they see as a menacing trend toward commercialism. One avatar, for example, has created "MetaAdverse", a network of advertising billboards inside Second Life to which property developers can feed images of their creations. More controversially, Second Life is also attracting the attention of corporations and advertisers from the real world hoping to attract the metaverse's residents. Publishers now organise book launches and readings in Second Life. The BBC has rented an island, where it holds music festivals and parties. Sun Microsystems is preparing to hold in-world press conferences, featuring avatars of its top executives. Wells Fargo, an American bank, has built a branded "Stagecoach" island, where avatars can pull Linden dollars out of a virtual cash machine and learn about personal finance. Starwood, a hotel and resort chain, is unveiling one of its new hotels in the virtual world.

Toyota is the first carmaker to enter Second Life. It has been giving away free virtual vehicles of its Scion brand and, in October, will start selling all three Scion models. The price will be modest, says Adrian Si, the marketing manager at Toyota behind the project. Toyota really hopes that an "aftermarket" develops as avatars customise their cars and sell them on, thus spreading the brand "virally". Toyota will be able to observe how avatars use the cars and might, conceivably, even get ideas for engineering modifications in the real world, he says.

Those Scion cars have "great driving performance for in-world physics," says Reuben Steiger, the boss of Millions of Us, a company he founded this year to bring companies like Toyota into SecondLife for marketing and brand-building. "How it corners and makes sounds when it

changes gears is great." So Toyota, which is a client of his, along with Sun Microsystems and even Mr Warner, shows that Second Life is "perfect for creating experiences around a brand," says Mr Steiger. "We don't think that conventional advertising will be very prevalent," he says, because it would "be badly received culturally". Advertising in Second Life is not about "trapping people" but about captivating and stimulating them. A good campaign in Second Life costs about \$200,000 dollars, he reckons, of which only a tiny part is property leases and most goes to paying the talented designers to create great virtual stuff.

Virtual strip mall?

Inevitably, this sort of thing turns some residents off. Will Second Life, that realm of individualism and pure creativity and spontaneity, get plastered over by the same mega-brands and mass culture that have, arguably, made the physical world such a homogenous place? In real life, many avatars argue, big business tends to push out small artisans. If the same happens in Second Life, the metaverse will lose its *raison d'être*.

Mr Rosedale, Linden Lab's founder, empathises with the concern, but thinks it is misplaced. "That is a fear which comes from the real world that is not likely to be borne out in Second Life," he says. His arguments are all economic. In the physical world land is scarce, so big brands can buy up much of it; in Second Life, Linden Lab simply allocates more computer-processing power and makes even more islands available. The world is infinitely expandable, in other words. If one patch did become homogenous and drab, avatars would simply fly off to the next.



Chilling out virtually

Another economic difference, says Mr Rosedale, is the lack of economies of scale in Second Life. In real life, a shoemaker, say, can reduce the average cost of making a pair by producing huge amounts, and the average cost of marketing by buying advertising in bulk. In Second Life, however, scale means nothing. There is no manufacturing cost to minimise. Gimmicks, such as giving away free shoes, are useless because nobody actually needs shoes at all. Nike, say, has no inherent competitive advantage over a hobbyist who likes to design shoes (or feet, paws, wings or claws) for fun. Thus, says Mr Rosedale, whereas the physical world has relatively few things that are sold in huge numbers, Second Life has huge numbers of things that are sold in relatively small quantities. In the statistical jargon, Second Life's economy trades in "the long tail" of things.

This is why, for the time being, Mr Rosedale prefers to rule Second Life with Adam Smith's "invisible hand" only. To him that means treating every resident the same, whether it happens to be Toyota or "an 80-year old woman from India." Both will pay the same price for their acres; what they do with it is up to them. If it ever became necessary, he adds, Linden Lab could "become a regulator and break up monopolies", but this does not seem likely to come about.

How, then, is one to make sense of Second Life? For those new to it, it appears to be too mind-boggling to have much relevance to real life. For those who spend time inside, however, Second Life ironically tends to resemble the real world even as its obvious differences become clear. Mr Kapor, Linden Lab's chairman, is the first to agree. "People bring all their karma" into the world, he says. Alongside benevolence, there is harassment. If Second Life were ever to become truly mainstream, there is no guarantee that residents would not pollute it with racism and hatred. Perhaps crime too: residents had to reset their passwords after a recent hacking attempt.

These things may be a criticism of human nature, but it cannot be blamed on Second Life. Henry Jenkins, a professor of media studies at the Massachusetts Institute of Technology, thinks that SecondLife deserves credit as "a world of hypotheticals and thought experiments." From new approaches to corporate branding to education, Second Life is a petri dish for innovations that may help people in real life. Already, therapists are using SecondLife to help autistic children, because it is a safe environment to practice giving signals to others and interpreting the ones coming back. Other organisations are using Second Life for long-distance learning. Overall, says Jaron Lanier, the veteran of virtual-reality experiments, Second Life "unquestionably has the potential to improve life outside." •