**Living a Second Life**

**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" (i.e. 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 "shock". The floor might fall away leaving the person to walk on stepping stones about the clouds. An in-world television set would change from showing an actual speech by [Rob Hawke](https://www.secondlife.com), Australia's former prime minister, into Mr Hawke shouting, "Go and kill yourself, you wretched!" 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, 75% of the visitors said afterwards that it "augmented their understanding of a patient's inner world."

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**Second Life**, as Mr Yellowlees illustrates, is not a game. Admittedly, communities there were 242,769 as of late September, and the number is growing by about 20% every month—so there just for fun. They fly over islands, meander through castles and gawk at designs. 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 shrines and meditate.

Many use it as an enhanced communi-
cations medium. [Mark Warren](https://www.secondlife.com), a former governor of Virginia who is considered a possible Democratic candidate for president in 2008, recently became the first politician to give an interview in Second Life. His avatar (also named Mark Warren) flew into a virtual town hall and sat down with [Hamlet Au](https://www.secondlife.com), a full-time reporter in Second Life. "This is my first virtual appearance," Mr Warren 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 beaving), until Mr Warren disappeared in a cloud of pixels.

By emphasizing creativity and communication, Second Life is different from other synthetic online worlds. Most "massively multiplayer online role-playing games", or **MMORPGs** (pronounced "mor-peg"), offer players pre-fictionalized or themed fantasy worlds. The biggest by far is "World of Warcraft", by [Blizzard Entertainment](https://www.secondlife.com), 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](https://www.secondlife.com), a professor at Indiana University and the author of "Synthetic Worlds: The Business and Culture of On-line Games". They only allow players to escape into their imaginations and to take part by, say, joining with others to slay a monster.

**Making, not playing** 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](https://www.secondlife.com), the founder of [ Linden Lab](https://www.secondlife.com), 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 artfacts found within them, Second Life provides its residents with the equivalent of atoms—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 scripting 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 as 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 20,000 objects created, about 25,000 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 7,200 profitable "businesses," where avatars supplement or replace their day jobs with their virtual-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 metaverses, 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 covered 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 Jason Forgie of Forgie Solutions, a consultant to "virtual reality" in the yogos and is now "science advisor" at Linden Lab. And it connects people, he says, because "the act of creation is the act of being social."

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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 ridiculous. Linden Lab does not sell advertising in stead 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 53,000 acres, which, in real life, would be bigger than Boston. This works out to monthly revenues of $5m, 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 Ondrejka 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 Castanov. The American dollar, for instance, is virtual precisely from the value of the paper used for the bill but in that it requires consumers to trust 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 game communities, called "gold farmers," play virtual games such as a "World of Warcraft" professionally to sell weapons, points or lives to fellow players in real communities. But Second Life is unique in that residents create online what they sell. As such, Mr LaLint, "the only trade example of a self-sustained economy out of the internet. But all these economies is its ability to change the real lives of its residents, its innovations in technology and in its business model. Second Life has become a dating site 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 1960s and 1970s. He is now chairman of Linden Lab. To him, Second Life is comparable to both the rc and the internet itself, which started as something "quirky" for geeks, and then entered and transformed mainstream society. "Spend ing part of your day in a virtual world will become commonplace and "profundly normal," says Mr Kapor. Ultimately, he thinks, Second Life will "displace both desktop computing and other two-dimensional "user interfaces. As "a 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 easy to make such predictions. After all, Second Life is still a relatively small virtual world—only about 50,000 residents are usually logged in at any one time, for example. About two thirds create content from scratch, but usually they customize things that they find or browse passively. And a lot of the wares on offer are basic. Whereas a few residents choose very imaginative houses for their avatars, most have shapes, male and female, that how to the default templates and look, predictably, like kommerically enhanced porn stars. Among the artefacts, there is some genuine art but quite a bit of junk.

Is Second Life a vitreous where "un known talent can prove its creative abilities and see it in the real world? "You can create your own island and people come ba}
to it," said Bill Joy, a co-founder of Sun Mi-
crosystems 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. Catronova also cautioned against
concentrating on the depth and breadth of
Second Life's economy. Yes, people do
create clothes and games and spacecraft in
Second Life and then sell them. But most of
the big money comes from the virtual
equivalent of land speculation—people
lease islands, erect pretty buildings and
then rent them to others at a premium.
Tongue in cheek, Mr. Catronova 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 monetizing trend
toward commercialism. One avatar, for ex-
ample, has created "MetaDesire," a net-
work of advertising billboards inside sec-
ond Life to which property developers can
feed images of their creations. More
controversially, Second Life is also attract-
ing the attention of corporations and ad-
vertisers seeking to tap the growing house
attract the metaverse's residents. Publishers
now organize book launches and readings in
Second Life. The Bac has rented an is-
land, where it holds music festivals and paperbacks are preparing to hold in-world paper conferences, featuring authors of its top executives. Wells Fargo, an American bank, has built a "Bverage
island," where avatars can play golf, rent dental offices out of a virtual cash
machine and learn about personal fi-
nances. Starbucks, a large and ambitious,
is unveiling one of its new hotels in the vir-
ual world.

Toyota is the first carmaker to enter
Second Life. It has been given away free vir-
tual vehicles of its Scion brand and, in Oc-
tober, 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 "affordable" develop as avatars use their cars and ride
on, thus spreading the brand "virally.
"Toyota will be able to observe how avatars use the cars and might, conversely, even get ideas for engineering modifications in the real world."  

These Scion can 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 Second Life by marketing and brand building. "How it looks and makes sounds when it
changes gears is great." So Toyota, which is
a client of his, along with Sun Microsystems
to which Mr. Warren shows that Sec-
ond 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 "tap-
ning people" but about captivating and stimulat-