



Metaworlds

Avatars could be the next interactive revolution. Just don't let them steal your head.

By Robert Rossney

It's a traditional wedding, more or less. The party fills the altar room, a small space ornamented with colorful art nouveau curlicues. Friends of the couple have decorated the room with a thick rug of green ferns and bright-red potted flowers. The bride and groom stand facing each other in the middle of the wedding party.

The oracle Uni, standing before the couple in her bright purple robes, is bringing the service to its climax. "Do you accept this man in marriage?" she asks the bride. "Do you promise to share your life with him, to involve yourself in his life, to build a life together with him, in full consideration of him? Do you make this commitment voluntarily, sincerely, with full intention of fulfilling this commitment, whatever the cost?"

"I do," answers the bride.

And here, at the emotional peak of the Kymer wedding ceremony, is where things get weird. "In token of these vows you have pledged and this bond of love you hold," says Uni, "please remove your heads and present them to the oracle." With Uni's help, the bride and groom pop their heads off and briefly exchange them.

This is not the only thing out of the ordinary here. The best man has the head of a cartoon cat. The maid of honor seems to be a panda. The minister, unlike most, flies into the air after pronouncing the couple man and wife. The wedding's 26 guests can't all fit into the tiny altar room, so they're attending it as disembodied ghosts. Strangest of all, while workers gather up the palm fronds and flowers after the service, the whole world winks out of existence.

"What's going on?" asks Janet Richardson, standing up from her workstation at Fujitsu Cultural Technologies in San Jose. I've been watching over her shoulder as Richardson, in character as the oracle Uni, has conducted the ceremony, playing back macros from a file that is to the island of Kymer what the Book of Common Prayer is to the Episcopal Church. But now, phones are ringing and heads are poking up from cubicles the way they do in offices everywhere when the system goes down. "Vaz?"

Vaz is short for Vaserius, the stage name of WorldsAway's lead oracle. In real life, his name is Jeffery Douglas; his formal title is producer, and he's getting off the phone, looking just a little besieged. "You need to contact acolyte Brynne and tell him not to open the container he's carrying," he tells Richardson. It seems that one of the objects in the WorldsAway database, a storage chest, has been corrupted. Acolyte Brynne, a WorldsAway user who is cleaning up after the wedding, keeps trying to put ferns into the chest, but every time he opens it the server crashes. It's a mess. "Fortunately," Douglas shrugs, "this doesn't happen often."

For a place that doesn't exist, Kymer is doing brisk business. WorldsAway - the formal name of the service that is home to Uni, Vaserius, and acolyte Brynne - has been available on CompuServe since

last September and will soon be accessible via the World Wide Web. Day or night, you can find dozens of customers - or, at least, their avatars - strolling through the streets of Kymer.

This may make WorldsAway the most successful example yet of a new species of online service. Part chat room, part adventure game, part puppet show, part simulation, it's hard to know what to call this species. "Avatar-based online shared virtual environment" may be accurate, but it's a mouthful. "Graphical MUD" is a good try, but only if you know what a MUD is. Randy Farmer, one of the original developers of WorldsAway, just calls it "cyberspace," but he faces a lot of competition for this word.

It doesn't help that a lot of people in this business refer to the environments they're creating as "worlds." And nearly every company in the business uses "world" as part of its name. There's Fujitsu's WorldsAway, for one. There's Worlds Incorporated, whose two services are called Worlds Chat and AlphaWorld. And, of course, there's Microsoft's Virtual Worlds Group. (Time Warner, refreshingly, calls its The Palace.)

So to keep things straight, I'm going to call them metaworlds. This is partly in homage to Neal Stephenson, whose 1992 novel *Snow Crash* portrayed a metaworld that's a few technological and cultural notches above what's possible right now: the Metaverse, a virtual world so immersive and detailed it rivals the real one.

One feature of Stephenson's Metaverse that these real-life metaworlds all share is the avatar. Your avatar is an animated figure or icon that represents you when you're in-world. You tell it where to go and what to do. You see what it can see. You don't talk: your avatar does. You don't wave or smile: your avatar does.

In Stephenson's Metaverse, an avatar can look any way you want: "If you're ugly, you can make your avatar beautiful. If you've just gotten out of bed, your avatar can still be wearing beautiful clothes and professionally applied makeup. You can look like a gorilla or a dragon or a giant talking penis in the Metaverse."

I didn't run into any giant talking penises in these real-life metaworlds, but it wouldn't surprise me. In Worlds Chat, I've talked with leather-clad Asian women, chess pieces, blowfish, and butterflies. In The Palace, I've chatted with Frank Sinatra, Gumby, and the Pillsbury Doughboy. And in Microsoft's V-Chat, while manifesting myself as a flamingo with a cigar clutched in its beak, I've stood in a fish-bowl speaking broken French with a purple-robed wizard who, in real life, was a fellow somewhere in Luxembourg. The language barrier was devastating, but we managed to entertain each other nonetheless: I flapped my wings frantically, and he exploded, transforming himself into a toad.

This sounds fun, and it is, but I started out with serious doubts about whether metaworlds were worth taking seriously. I've spent more than a decade online. I've visited just about every kind of place a computer and modem can take you. The places I've seen online that flourish do so when people bring themselves to the table, contributing their own ingredients to a communal stew of ideas, opinions, and metaphors. Where you find people building relationships, sharing day-to-day experiences, teaching each other what they've learned about the world, and figuring out together how they're going to face the oncoming day - those are the places that thrive. Those are the places that people live in.

And they're never chat rooms. Everything in the chat room experience fights against depth and continuity. Chat room conversations always start from scratch; maintaining context from day to day is impossible. And chat is structured against thoughtfulness: if you don't say what's on your mind right now - you don't exist.

My initial forays into these metaworlds left me feeling like they were too similar to chat rooms for comfort. As I nudged my avatar around with the mouse and pushed buttons to make it wave as I said, "Hi all," I began thinking that metaworlds took the features that make chat rooms so paralyzingly banal - the lack of continuity, the constant demand for immediacy, the inability to support sustained dialog - and wed them to the empty eye-candy of the videogame. But when I pushed the developers about this, they pushed back hard. There's much more to metaworlds than chat, they told me. Text-only worlds

shut out an entire sphere of communication, they said. The ability to gesture brings the nonverbal channel back to the online world. Choosing an avatar is a new and significant way to project your identity into cyberspace. People can stake out their own territory in metaworlds, make these places their own. This is where the next revolution in cyberspace is going to take place.

As grand visions go, this was good enough to get me jazzed about taking a closer look. But then the marketing people chopped it off at the knees. When I asked the suits why they thought the public would pay for metaworlds, every one of them pointed to chat rooms. Some even claimed to have seen studies that said people spend as much as 70 percent of their online time there.

Now I could never nail that number down. That 70 percent may well have been plucked from the realm of urban myth. But Jupiter Communications, a New York City-based consulting firm, estimates that people using commercial online services spend 25 to 30 percent of their time in chat rooms.

Whatever the developers might think about metaworlds, the people who sign the checks like looking at them as a cross between chat rooms and videogames. There's big money in this business - Microsoft, Time Warner, Fujitsu - and they're not in it for recreation. They're here to make money, whether by charging people to visit their online theme parks, by charging businesses to advertise to these visitors, or by selling the software that lets people get in the door. Nobody can say just how big the online services market is, but it's a universally accepted truth that it's big enough to go after. The suits aren't going to kick 70 percent of it - or even 25 percent - out of bed.

Still, the developers' vision was exciting enough to convince me that metaworlds were worth a second look. And what the heck, the stuff was fun to play with. But I also knew that in the race between engineering and marketing, the smart money is on marketing. So I went back to look at metaworlds to find out which of these two forces would prevail. But I was surprised to find that there was a third force to contend with - the users.

Building a virtual culture

Fujitsu's cultural technologies division is housed in a sterile brick and glass office building in a grim San Jose business park. Inside are vast spaces laid out in rank after rank of cubicles, uniform in size and reddish beige color, stretching out beneath a flat sky of white fluorescent lights. Dilbert works here. It doesn't seem like it could have anything to do with the colorful and surreal world of Kymer.

But walk through the door that leads to the cultural technologies division, and everything changes. Here, the artists have taken over. It's impossible to get colors right under fluorescent light, they've declared, so the ceiling is dark. The cubicles are just like those outside, but each has its own lighting; the pools of light from the profusion of desk lamps make the space quiet and inviting. The corridors are dim, but not too dim, and they're decorated with color printouts of the project's latest artwork. A person could actually get some work done here.

WorldsAway is a descendant of the first and longest-lived graphical metaworld, Habitat. Randy Farmer and Chip Morningstar originally developed Habitat for Lucasfilm in 1985. With its client software running on the Commodore 64, Habitat opened for business in 1988 on the online service QuantumLink as a metaworld called Club Caribe. This metaworld contained most of the concepts found in WorldsAway, including avatars that can talk and gesture, its own geography, and token-based internal economy.

Over the years, a lot changed. Lucasfilm licensed Habitat to Fujitsu for use in Japan in 1988; Fujitsu turned around and implemented the software on its FM-Towns personal computer in 1990, where it runs to this day via Japan's Nifty-Serve network. Commodore fell into desuetude. QuantumLink became America Online and stopped supporting the Commodore 64. Club Caribe, the Habitat-based world that had survived almost a decade, finally shut down in March 1994.

The year before, Fujitsu had decided to bring Habitat back to the US. In 1994 the company licensed Habitat for worldwide use and hired Electric Communities, where Farmer and Morningstar had ended up, to get the project started. A year later, Electric Communities was out of the picture, and today

Fujitsu's internal team of artists, programmers, and oracles is managing and extending the world.

Getting into WorldsAway is easy enough, once you've installed the client software: you just log onto CompuServe and type go away. And it's fairly simple to use. The screen shows a background that's something like a stage. Click on the screen, and your avatar will walk to where you clicked. Using various menus, you can make your avatar pick objects up off the ground, feed coins into vending machines, and put things in its pockets. Other menus let you wave or smile at other avatars you meet. Anything you type appears in a speech balloon above your avatar's head.

WorldsAway's long history is a little too evident. It looks cool - the background graphics are in a hallucinatory art nouveau nouveau style, sort of Aubrey Beardsley meets William Gibson - but the software feels like something that used to run on a Commodore 64. There's something not quite right about the avatars: their stiff movements and the expressions frozen on their faces look disconcertingly unnatural. And while I quickly got the hang of clicking on the screen to make my avatar walk to stage left or stage right, chatting with the keyboard while also gesturing with mouse clicks eluded me at first. But as I hung out in Kymer and paid attention to what the other avatars were doing, it became clear to me that there was something else going on here, something significant. It had to do with persistence.

Kymer is a persistent metaworld: objects within it remain there even when you're not around to see them. Drop something on the ground and, unless someone else picks it up, it will be there when you come back a week later. Your identity persists, too: every time I visited Kymer, I had the same dumb-jock avatar and the same Roger Ramjet head. And like everyone else, I had to figure out how the world works. I had to learn the conditions of existence, and what they meant.

"Man," the cultural anthropologist Clifford Geertz writes, "is an animal suspended in webs of significance he himself has spun. I take culture to be those webs." The persistent objects in Kymer, much like objects in real life, are accruing meaning as people make them part of their lives. Using these objects, Kymer's inhabitants are spinning a culture of their own.

This is most visible in the strange crimes that Kymer's tricksters and malcontents learned to commit and the practices the more law-abiding citizens have adopted to defend against them. For instance, while the wedding I attended was festive, its participants were also on guard against wedding bandits - raiders who crash the party, steal the valuable decorations on the floor, and run away. And then there are the headhunters.

Buying a head is the most prominent way to assert your identity in Kymer. Your choice of a head determines how other people see you. (It's not for nothing that in wedding ceremonies the bride and groom momentarily exchange heads.) It's no coincidence that heads are among the most expensive artifacts in Kymer's virtual economy of tokens. As objects of great value, heads also attract criminals.

The headhunters hang out by the docks, waiting for the boat that brings new users to Kymer. When a newcomer disembarks, the headhunter welcomes him with a friendly greeting. He gives the newbie a few hints on places to go and things to do. Then he moves in.

"Here's something fun," he might say. "Did you know you can take off your head? Try it!"

The newcomer removes his head. "So I can! That's pretty neat!"

"Here," says the headhunter, "let me show you something else. Give me your head."

You would think that most people would have the sense not to give something valuable, like their head, to a complete stranger. Judging from the number of headless avatars I saw wandering forlornly around the streets of Kymer, a fair amount of people do not. To combat the plague of headhunters, public-spirited citizens have started frequenting the docks just to warn newcomers not to give their heads to strangers.

None of Fujitsu's oracles came up with these solutions - or, for that matter, the problems. The users did. Douglas and Richardson don't see headhunting and thievery as problems that Fujitsu needs to

solve. Indeed, they're signs of life: proof that the customers take what they're doing seriously enough to invent new ways, even creepy ones, of interacting. "We've had users ask us, 'Can't you do something about this?'" says Douglas. "And we say, 'What are you going to do about it?'"

Under its unwieldy interface, the WorldsAway software is quite simple. But the kinds of interactions its users have started having are extraordinarily complex. The users are creating shared structures of meaning together, interchangeable heads. Having been given a world that works (even if it occasionally crashes), the people living there have taken on the task of figuring out what it means.

Give people the tools

It's Friday night in The Palace. People are gathering in the Spa, where a visitor who has figured out the software's prop-creation features is making geckos, whales, and rubber duckies. The duckies look quite at home floating on the blue waters of the Spa's pool. Since several of us are wearing them on our heads as we chat, the rubber duckies also look like they're talking.

We're talking about computers, or at least we're trying to. It's surprisingly difficult to have a conversation about computers in the Spa. The Palace's programmers have attached a simple word-substitution script to this room, and it messes with anything we say. "Bug" becomes "feature," "feature" becomes "undocumented anomaly," "Web" becomes "this thing that's eating my life." When I type, "This Microsoft software is a bug-ridden pig," my rubber ducky says, "This evil empire disk thingy is a feature-ridden pig."

This strange little world comes from a group of seven programmers and artists working for, of all places, Time Warner. The brainchild of Jim Bumgardner, The Palace emerged from Time Warner's ongoing flirtation with interactive television, the Full Service Network. Time Warner has given The Palace a chance to stay alive on the Internet instead. So far, it seems to be working.

At first, it doesn't look like there's much to The Palace. It seems like little more than a straightforward chat program with the addition of a bare-bones graphical user interface. The avatars, far from the fully articulated humanoids of WorldsAway, are static icons. They float over the background illustrations, flitting to new destinations whenever their owners, wherever they might be, click on the screen. When users talk, speech balloons appear over their avatars' heads.

But The Palace's simplicity also enables it to be zany in a way that WorldsAway, constrained by all of its functionality, cannot. The Palace is designed from the ground up so that users can easily assemble their own reality from whatever parts they have at hand.

Guests at The Palace - people who have downloaded the software off The Palace's Web server but haven't yet paid the 20 bucks to register it - appear as spherical happy faces that look like the disembodied head of Kermit the Frog. But users who have paid to register the software can make their own avatars and props from whatever images they can lay their hands on. In a busy room, half a dozen Kermit heads will bob around alongside avatars that look like Bill the Cat, Hobbes, Gumby, and, weirdly, the logo of the Philadelphia Eagles.

Not only can anyone make their own avatar, anyone can make their own Palace. When you download The Palace software, you don't just get the client program. You also get the server, which can support as many as 40 simultaneous connections on a normal Windows machine or a Mac. It may take a little technical and artistic skill to make a Palace site of your own, and a persistent Net connection to keep it open to visitors, but it's not brain surgery.

All of this was made possible by adopting a simple, two-dimensional model for the world. "We didn't start with the premise that 3-D is the most important thing," says The Palace Group's Mark Jeffrey. "For socializing, 3-D is not important. In fact, it's a barrier. You have to be looking at someone to hear them."

Instead, says Jeffrey, "we started from the premise that we wanted something fast, distributed, and easily customizable. Users can change avatars quickly, even several times in one session. Also, we have

a scripting language that allows you to extend the functionality of your Palace site. Our scripting language lets you do an awful lot with a few commands because you don't have the third dimension to deal with."

The scripting language, called Iptscrae, does more than substitute "the evil empire" for "Microsoft." In the Game Room at Time Warner's Palace site, visitors will find both a chessboard and a backgammon set that they can use to drag the pieces about on the screen to play a game together. In another room I've played Wheel of Cheese, a never-ending game modeled after TV's Wheel of Fortune that's run by a scripted bot.

Because setting up a Palace is simple, at any given moment there can be several dozen Palace sites on the Net besides the one that Time Warner Interactive runs. Some are professional spaces, like the one run by Fox Broadcasting Corporation (where, as it happens, Jeffrey used to work). Others are individual labors of love, like webdog's Dog Palace, which runs on a Macintosh at San Francisco State University. Much like the Web, The Palace is fast, cheap, and out of control.

And Time Warner Interactive is trying to make money with The Palace in a very Web-appropriate way. It distributes a crippled version of its client software from its Web page and charges users a registration fee to get access to all of its features. The company also allows users to easily set up their own servers, working from the theory that new servers sell more clients.

In addition, though no one is doing it yet, it's quite possible to set up your Palace site as a business. If you do, Time Warner wants its cut. As Jeffrey says, "The free server license does not give you the right to advertise or charge admission. We're now giving that away for 5 percent of the gate." As to whether this is working, Jeffrey will only say, "I think if you ask me that in six months, we will have made back our initial investment."

The Palace isn't as much of a metaworld as WorldsAway is. Objects are less persistent and identity more ephemeral. There are few signs of a culture developing there yet. But as the profusion of MUDs over the last decade demonstrates, if you give people the right tools, they'll make their own worlds.

The Palace's success so far demonstrates that the lessons of the Net also apply to metaworlds. The astonishing vitality of the Net comes from the people who are using it. Putting tools into the hands of as many people as possible - whether the tool is Usenet or gopher or HTML - is a wellspring from which unimaginable creativity flows. True, it can also be the source of tedium, outrage, and mediocrity. But doing something interesting has always been the surest way to draw attention on the Net, and this has motivated a lot of people to make cool things.

The Palace site that Time Warner runs is fun enough. But the server software and scripting language the company has made available to all comers is another order of achievement. Someone, somewhere, is going to take those tools and make something cool enough to attract a lot of attention.

The importance of design

After my experiences with WorldsAway and The Palace, I'd come to expect the rooms in metaworlds to look something like, you know, rooms. This one does not. It's a vast, still pool ringed by distant mountains beneath a dark sky. Three golden paths emanate from a hub at its center, each leading to a large golden bowl shaped like a concave rose petal. Above the bowls, above the mountains, in the twilight sky, hang two moons.

This particular space is a room for V-Chat, the avatar-based chat system that has been running on The Microsoft Network since late 1995. I'm looking over the shoulder of Phillip Reay, who runs his own design firm called Metacosm. He created this room and is under contract to Microsoft. He's using his mouse to steer his avatar through the space. It's a little disorienting, like watching someone play Doom: this is a 3-D, first-person space, and what's on the screen is the constantly changing view through his avatar's eyes. He weaves between the bowls, goes up and over the lip of one, and the screen fills with gold. "Want to go see the moon?" Reay asks. Sure, I say. And up into the sky we go. The moons turn out to be a long way away, a full minute of flight at whatever speed our avatar is

traveling.

One of the moons already fills half the screen when Reay turns his avatar around and looks at the ground. Far below us lie the tiny pool and the three golden paths, surrounded by a stubby cylindrical ring. The ring is those distant mountains, which aren't mountains at all: they're pictures of mountains drawn on a flat screen. From up here, you can see it's just a set.

The moon, too, has started to flatten out as we approach it. "It's not a sphere," Reay explains. "It's a disk. It looks like a moon from a distance, but it's fake." By now, we've traveled to the far side of the moon. The back of the moon is a great blank circle; across it, in huge spidery letters spelled backward, is the word moon.

Reay likes leaving surprises like this for users to find. In one of V-Chat's very first chat spaces, he hid a secret passageway in a fishbowl sitting on a table in a round room. Not long after V-Chat opened, curious users discovered that if they probed long enough, they suddenly found that they had escaped from the round room to the larger metaworld outside. And the back of the round room looked, from outside, much like the back of a stage set.

The secret passage was a surprise to Linda Stone. An artist and former children's librarian, Stone was one of the first HyperCard developers and evangelists at Apple. Nathan Myhrvold, Microsoft's director of advanced technology, lured her to Microsoft with the promise of autonomy and the chance to live in Seattle, where she'd lived before. And so here she is running Microsoft's Virtual Worlds Group. Stone was delighted when she found that users beta testing the fishbowl not only found the passage, but eagerly shared the secret with one another. "People like to explore, and they like to explore together," she says. "It's something that draws them together and causes them to play together and teach one another."

Getting people to play together seems to be V-Chat's main goal. The spaces are fun to explore, and the avatars are fun to play with. Where WorldsAway's avatars struggle for realism, V-Chat's abandon realism altogether. Click on the "Flirt" button, and your avatar's eyeballs might turn into bright-red hearts and pop out of their sockets, like the wolf in Red Hot Riding Hood. One avatar consists of four blue triangles, a black swirling line, a purple top hat, and a grin; sometimes it looks like a human figure, and sometimes it looks like an accident.

By the time they get to market, most of Microsoft's products have gone through so many focus groups that all the interesting corners have been rounded off. That hasn't happened with V-Chat. The technology is too new and the experience - both of using and selling it - is too unfamiliar. Nobody really knows what's going to work. So right now, the dozen or so artists, architects, programmers, and animators that make up the Virtual Worlds Group are throwing chat spaces and avatars up on MSN and seeing what sticks.

The three-dimensional spaces in V-Chat, like the fishbowl and Reay's pool, use the same first-person perspective model as Doom. But V-Chat also has two-dimensional spaces that function more like The Palace's. There's Lulu's Club, a chaotic nightclub scene in which avatars take turns at the mike telling jokes. There's BugWorld, a strange, beautiful, and entirely abstract place that looks like a Miró painting populated by insects designed by Alexander Calder.

These spaces are original and oddly charming, but they aren't quite full metaworlds. Microsoft's persistent metaworlds are still in development. And as Stone readily acknowledges, that's where the future really lies. Chat spaces, she says, are for people who are inclined to drop in, talk for a while, and then leave, as if they were going to a bar. With metaworlds, she says, "you really make an investment. You make an avatar for yourself that really becomes your identity. You might create a home for yourself, invest in the community, create or exchange objects. Chat is dabbling. Worlds are for people to live in."

Making metaworlds that people live in is tricky, especially if you also need to make them work as businesses. The most obvious way to make money from a metaworld - charging people by the hour - is

also counterproductive. Once the novelty has worn off, what keeps customers is the experience of talking and playing with other people. So charging by the hour gives your customers an economic incentive to do the exact opposite of what you want them to do, which is hang out.

But there's another way to make money at this business, using a model that comes primarily from the world of magazine publishing. Get enough people to live in your metaworld, and you'll own something very valuable in these marketing-oriented times: a population with well-defined demographics that has access to an excellent conduit for advertising.

Is this really what metaworlds are coming to? Product placement? Will you steer your avatar down metastreets littered with Coca-Cola metabillboards? Will the toys and props that your avatar plays with have discreet Nike and Reebok logos on them?

Maybe so. And maybe this isn't as depressing as it sounds. "Ads are a part of the culture," says Manny Vellon, a development manager in Linda Stone's group. "In the real world, you think nothing about seeing a bus go by with an ad on its side. The virtual world could work the same way: ads that are part of the scenery."

This may seem like a glib rationalization for infecting yet another sphere of public life with advertising. But as anyone with an email address already knows, the marketers are going to find you anyway. We may as well get them to subsidize the existence of metaworlds.

But while Microsoft, among others, figures out a way to get advertising into metaworlds, it's proving another point: There's a key role for the design professional. This sounds like it might contradict the populist lesson of The Palace, but it really doesn't. The Palace lets anyone who can paint or scan a bitmapped graphic make a backdrop for a metaroom. There's plenty of opportunity for creativity there, but nothing in any Palace site that I visited was remotely as engrossing as the spaces that Reay and his colleagues are building.

And Microsoft's avatars were developed by artists raised on the long history of character animation; you can find references to everything from Tex Avery to Nick Park. They're products of skilled people who are putting every hour of every working day into thinking about the various kinds of unreality that avatars can successfully embody.

In the end, it comes down to two different theories of individual style. In metaworlds, anyone can design a bag to wear on their head when they're acting out. (This is even true in V-Chat, which supports a tool called, in characteristic Microsoft fashion, the Avatar Creation Wizard.) But making one is also a lot of work, and demands skills you may not have.

Out in the real world, most of us don't design our own clothes, and few design our own homes. We accessorize and decorate, but the design work is left to people who know how to build things that look good and don't fall down. Accepting our limitations in these spheres doesn't turn us into clones. Wearing Givenchy suits didn't make Audrey Hepburn derivative. It made her stylish. The real world has room for both kinds of approaches, and so do metaworlds.

Staking out real estate

The production office of Worlds Inc. stands in stark contrast to the corporate warrens of Fujitsu or the overgrown junior college that is Microsoft. Its office is that of the go-go multimedia start-up almost reduced to a cliché. It's in San Francisco's Multimedia Gulch, sharing a building with an architect, a clothing manufacturer, an importer of herbal teas, and this magazine.

There are no cubicles at Worlds Inc. Indeed, there are no internal walls at all. Instead, there are a haphazard congeries of desks fashioned from doors laid across filing cabinets. Computers cover practically every flat surface. There's a Roland electronic piano here, a Korg synthesizer there, and what looks like a genuine surplus Douglas Aircraft Division ejection seat near the server and the punch-down blocks. And a stuffed penguin.

The stuffed penguin makes an appearance as one of the avatars in Worlds Chat, the chat system that Worlds has been running on the Internet since early 1995. Worlds Chat is Doom reworked as a cocktail party. Unlike Doom, it's set in a clean and bright space station, not a grim maze of underground caverns. And the other beings that you meet in your peregrinations are not going to rip your head off. They're just going to talk to you.

Worlds Chat is a good implementation of three-dimensional space, and the avatars are fully 3-D: cruise up next to someone and you can see what their avatar looks like from the side. But while these avatars may be solid, they're rigid too. They don't gesture, like the ones in WorldsAway, and they're much harder to customize than those in The Palace. And the space station that they inhabit is bland; with its monotonous corridors and low ceilings, it looks disconcertingly like Fujitsu's offices.

Worlds Inc. has come up with a sharp-looking technology. It may not have the depth of WorldsAway, the charm of V-Chat, or the grassroots potential of The Palace. But it looks great in a demo. So Worlds Inc. has had considerable success marketing its technology and knowledge to Net curious companies that want to try something different online.

Developing 3-D chat spaces for corporations may be profitable, but it's a business driven by the need to impress clients rather than attract users. It's easy to see how marketing executives at a financial-services outfit might go nuts over the kinds of spaces Worlds Inc. has prototyped. But it's hard to imagine anyone hanging out in these spaces. The prototype virtual bank that Worlds devised for Visa International is just like a real bank. Too much so: it's charmless, with nothing to do except ask the teller for your balance.

The spiritlessness of the corporate worlds that Worlds Inc. has built on contract drives home an important point: technology does not make worlds interesting. People do. If these companies want their metaworlds to work as a business, they will need to bring people together. They will need to give users the tools they need to build their own culture. And then, they will need to get out of the way.

The people at Worlds Inc. are aware of this. And they've created another metaworld, AlphaWorld, that lets users build whatever they want. AlphaWorld is gratifyingly weird. It may be even weirder than Fujitsu's WorldsAway. Like WorldsAway, AlphaWorld is a shared space inhabited by avatars and full of persistent objects. But it has a completely different focus. While WorldsAway is organized around social interaction, AlphaWorld is for people who want to build things.

The persistent objects in AlphaWorld are all architectural: squares of paving stones, curtain walls, windows, fountains. It doesn't take much to become a master builder here. You can make your own building materials by cut-and-pasting pieces of existing buildings, and you can build anywhere you can find open space. This is true digital homesteading: once you build something on a patch of ground, it's yours.

The world that results is like a sprawling, out-of-control, multiplayer version of SimCity - only without rules, or Sims. It's full of half-finished buildings and roads that go nowhere. But at the same time, it's eerily deserted. Wandering about its empty streets, I felt like a survivor traveling through a sprawling metropolis after neutron bombs went off.

While AlphaWorld definitely has all the characteristics of a metaworld, it's not very social. In fact, in all the time I was there I never spoke to another person. The user interface is optimized for moving your avatar and making objects, not talking to people.

There's nothing to do in AlphaWorld but build, and the buildings themselves have no purpose. Nonetheless, the place is crowded with structures - so much so that new users have a hard time finding any space of their own to build. All the land near the metaworld's entry point has already been taken. You have to travel through ring after ring of what seem like bizarre suburbs before you finally arrive at a patch of green where you can build. Worlds Inc. is adding teleporters to outlying undeveloped areas so that new users won't give up before they find a patch of open ground.

It's unfair to judge AlphaWorld as if it were a finished product. It's not. It's an experiment, and one

that's still evolving as Worlds Inc.'s developers figure out what they can induce this world to become. "We're making up the rules as we go along," says David Leahy, who produced Worlds Chat. "Right now, there's a certain subset of people who are attracted to it. They have to be technical to fight through the interface. This isn't going to push everyone's buttons."

In ways, AlphaWorld represents the most exciting and fully realized version of a metaworld yet: a true virtual frontier, a place where people can actually move in and build habitation. But what happens when the frontier is settled? What happens next is socialization, and this is where AlphaWorld, in its current form, falls down.

The hybrid metaworld

All four of the metaworlds I visited had the unmistakable feel of works in progress. Even Fujitsu's WorldsAway, with its decade of rich culture, is far from a finished product. Microsoft's V-Chat, despite the sheen its talented designers have put on it, is really still a series of experiments. And it's clear that AlphaWorld and Time Warner's Palace - both of which, in their way, give tools to users - are only at the beginning of their evolution.

But something important is emerging from all this experimentation. It took a while for me to realize this, but we're watching something much larger than fiddling with new technologies for games. This really could be what the future of the online world looks like.

When I first started playing with them, avatars seemed hardly worth the trouble. Downloading megabytes of software just so I could have a cartoon character standing in for me online seemed silly. And it drove me nuts to take my hands off the keyboard - that is, to stop communicating with other people - just to steer my avatar around. But I've come to think that this is an interface issue that will be resolved.

I now think that we need avatars. In a way, we already have an early form of them - our online personas. Hang out in one place online - whether it's a BBS, a chat room, or a newsgroup - and eventually you'll recognize people by the personas they've created. The blustering libertarian loony or the impossibly erudite Janacek aficionado are typical personas you might encounter online. These aren't people but personas: versions of these people's real-world selves that, mediated by their words, have been projected into the discussion space.

Today, our user IDs play the role of embryonic avatars. How you process what a person says partly depends on what is evoked in your mind by seeing the handle HotGirl4U or StiffJack3 in a chat room. Avatars perform much the same function as those tiny strings of characters. Yet they can be much more personal and subtle. They can be customized and accessorized. And they will be. Look at the enormous number of individual homepages on the Web. People already are using online technology to say: Here I am, this is me. Avatars will provide more vivid and active ways of doing this.

As I watched people more at home in metaworlds than I am, another thing became clear: the ability to gesture is essential. Already in today's online world, people seem like lions pacing in a zoo: they're dying to break out of the cage that text-only discourse puts them in. The smileys, ASCII graphics, strange spellings, and acronyms that you see everywhere online are all ways of rushing at the bars.

We need to communicate with more than words. Conversation in real life often consists more of hand-waving, facial expressions, raspberries, yawns, murmurs, and weird nonverbal vocalizations than of words strung together in a coherent sequence.

Today's avatars have a limited palette of gestures. WorldsAway and V Chat restrict users to no more than 11 and 12, respectively. And using even this small selection of gestures is tricky at first - pausing midsentence to figure out which function key to press is not very intuitive. But neither is hitting the caps lock key when you want to yell, and people seem to have gotten the hang of that.

As they become easier to use, avatars will enable us to communicate more fully. The ability to gesture, if we can figure out how to do it naturally, will allow us to construct entire visual languages that we can

use in conjunction with textual utterances to add layers of nuance and subtlety to our verbal communications.

Finally, there is the critical matter of persistence. For metaworlds to be places unto themselves, inhabitants must be able to build on their experiences there. When users can change the state of objects in a metaworld, and when those changes persist from day to day, it becomes possible for those objects to embody meaning.

In the real world, this happens in millions of small ways. Place a blue bottle in your kitchen window so it catches the light. Today, it's a pretty new thing in your life. Six months from now, it will be a comfortable part of your day-to-day existence, an aesthetic decision you don't remember making but that reminds you - and anyone who comes into your kitchen - who you are.

This can happen online, too. Over the last decade, a rudimentary online culture has emerged from the prosaic technologies of networking and computers. People live there now, weaving cultures from skeins of persistent text. They are building online lives whose complexity and richness could not have been imagined in the days of the 300-baud modem.

In the future, we are promised, we will be able to connect from any point on the globe to a network of unlimited bandwidth. We will have unlimited computing power on our desktops or laptops or palmtops. It will all be miraculously easy to use.

There's no small amount of irony in that kind of statement, but, on the other hand, consider the rudimentary state of the online world 25 years ago. Now, extrapolate 25 years into the future. It's hard to avoid the conclusion that the online universe that lies ahead is, as J. B. S. Haldane said, not only stranger than we suppose, it is stranger than we can suppose.

Today's metaworlds are primitive and ungainly, as clumsy an introduction to new forms of thinking as WordStar and VisiCalc were. But it's abundantly clear that they're tapping into something basic. They're providing spaces where fundamental human desires are given play. Having gotten a taste of this, it's hard to imagine a future for the online world that does not include avatars, gestures, and persistence.

The new front porch of cyberspace

The technology needed to support something like Stephenson's Metaverse is not really that far off. What if we find the combination of avatars, gestures, and persistence compelling enough to make them the standard? What if we all move into these metaworlds, conducting large portions of our lives online?

It's tempting - trendy even - to look at a development like this with alarm. Making online worlds richer, deeper, more immersive - isn't it going to happen at the expense of our involvement in the real world? As Microsoft's Manny Vellon puts it, "Are we creating the axe-murderers of the future? Are we encouraging disgruntled postal worker syndrome by creating technology that isolates people in their homes and minimizes external contact?"

Electric Communities's Randy Farmer has been working with metaworlds as long as anyone. He argues that the trend toward shutting out real life is a long-standing one. And while technology may be to blame, it's not the technology of computers and communications. He points to the death of the front porch as a social space, done in by two technologies. The porch used to be a place people went to cool off on long, hot summer days - until air conditioning let them stay inside. The porch also used to be a place people went to talk to their neighbors - but then television gave them something more interesting to do.

The history of cyberspace, Farmer points out, is almost the exact opposite of this flight inward: "It's the history of unsocialized computer geeks who suddenly became socialized. They built social structures, which every human needs. No matter how crude the environment online, we seek to create these social structures and relationships."

Farmer believes that the day will come when metaworlds are ubiquitous online, as omnipresent as

email is today. When this happens, he says, we'll see stronger real-world communities. "I look forward to it," he says. "We can see the reestablishment of geographical communities by moving the front porch into cyberspace."

I think Farmer is slightly off. The online world is full of things that are just like real life - but not quite. Email is not mail. A conference online is not the same thing as a conference in real life. Virtual communities share many attributes with real-world communities, but they differ in many ways.

The same will be true of metaworlds. If you try to evaluate them in terms of how well or how poorly they mirror the real world, then you're asking the wrong questions. We shouldn't be expecting metaworlds to supplant the real world or fix it. They won't. What they will do, though, is give people something they are ceaselessly searching for: new ways to connect with each other.

Robert Rossney(rbr@well.com) is not an irascible flamingo, though he has been spotted with a cigar in his beak.

[Copyright](#) © 1993-2004 The Condé Nast Publications Inc. All rights reserved.

[Copyright](#) © 1994-2003 Wired Digital, Inc. All rights reserved.