





Virtual reality sex reached a fever pitch of hype during the summer of 1999. At the Internext Expo in Los Angeles that June, Vivid Entertainment demonstrated what it called a "virtual sex suit." It supposedly received instructions from the Web on how to physically stimulate the person wearing the outfit, a black neoprene catsuit with a few wires on the outside and several dozen sensors on the inside. The company allegedly spent \$180,000 to develop the getup and hoped to sell it for \$170 a pop - only slightly less than it costs to hire a decent escort for an hour.

Vivid's project was discontinued after one year when the company couldn't figure out how to prevent a power surge from electrically shocking the wearer, according to Bobby Connelly, a former Vivid executive who has long since moved on to an interactive company called Peach. Apparently, a model named "Lisa" is the only person who has ever worn Vivid's cyber suit, and only during Internext. Sources have insinuated that the model's payment for the afternoon included compensation for her praising the wonders of the virtual reality suit, although Vivid refused to comment.

Vivid hasn't been the only adult entertainment company to struggle with haptic technology, or interfaces between virtual reality and "forced feedback" peripherals, which provide tactile sensations to the user to correspond with what occurs onscreen. The phenomenon has been far more successful in video games, from vibrating joysticks attached to home consoles, to rotating snowboards attached to large arcade screens. But unfortunately, most efforts to bring these innovations to cybersex have been frustrating, if not altogether fruitless.

Several companies have struggled to incorporate remote-controlled sex toys with haptic interfaces, commonly known as "teledildonics" or "cyberdildoes." The concept was first postulated by Howard Rheingold in *Virtual Reality* in 1991 (and he is credited with coining the name "teledildonics"), yet remains more of an ideal than a reality.

"Teledildonics is a concept that fell flat on its face. I never wanted to get too involved with it," says Marty Tucker, chief operating officer of Topco (www.topco-sales.com), a sex-toy manufacturing behemoth in San Fernando, Calif. "The concept is cute, but the problem is, for a man, that he doesn't necessarily want to follow the action on the screen. If the man gets excited, he just wants to go for it. Many of the videos have story content that don't correspond with any action from the toy part, and the guy could be aroused at that time but the tov won't work. The toy should work independently to do what the guy wants." In order to build something realistic and physically gratifying, it would require much more technological sophistication - to the tune of "a \$1 million piece of machinery, plus tens of thousands per month in maintenance."

People were frustrated with products like Digital Sexsations, the 1999 offering of a a dildo wholesaler and affiliate program in Boston. To top it off, "the company was a pain in the butt to deal with. I called them to say 'I want to sell this,' and they had a lot of demands. Maybe they were sensing that they were in trouble, maybe they invested a lot of money and then they weren't getting enough sales volume." He continues, "My concern with the virtual reality sex stuff is that it never feels like 'automatic stroking.' You still have to get a real woman."

Another offering that got mixed reviews was the Internet Friends Network's (iFriends. which trademarked the term "cyberdildo") SafeSexPlus.com. This package included a squishy latex sheath to be placed over the phallus, with one wire that plugged into an electrical outlet and another wire attached to suction cups that were to be placed on a computer monitor. Tiny photographic sensors were supposed to interpret rapidly flashing lights within a black box on the months after the product launched in June 1999. and has gone on to sell more than 750 of its Virtual Sex Machines. They are priced slightly higher than the others, at \$369 apiece. including videos of five different females, a synchronized toy, and a three-year warranty.

"It's the age-old story of 'sell them the printer for next to nothing and then sell them the replacement cartridges for a lot.' Although we don't make any content ourselves, we just license it from other video companies," namely Homegrown Video (www.homegrownvideo.com), says White, whose career as an adult video salesman dates back to 1985. "All the content is shot with a nude guy holding the camera. There are currently 35 videos that work with our system, and many more are in production. They come on a video CD that you can play on any Windows machine. And no, there's no way to just rent them."

The company spent four years developing the Virtual Sex Machine, which was originally a

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- Eric White, inventor, the Virtual Sex Machine

defunct company called FeelThe.net. Now merely a "document not found" error page, the Website had formerly offered cybersex by combining chat software with a black-andgreen hardware box. The gizmo plugged into a computer's serial port and sported four jacks for wiring in sex toys. Users could program their own keyword combinations to trigger different actions by the various dildo attachments. During its short lifespan, sex-toy retailers had been selling the package for \$180, but apparently not enough of them sold to keep the company in business.

"I invested money in Digital Sexsations, and I was trying to sell the thing for a couple of hundred bucks in the late 1990s. I sold only two in five months and it was a special item with a lower profit margins for us. There weren't even customers asking us to lower the price on it. I was surprised how little interest there was in it," recalls David Levine, CEO and founder of Convergence, Inc. (www.sextoysex.com),

screen, and transmit instructions to the sex toy to make it move. People complained that the suction cups didn't adhere very well, let alone receive the commands keyed in by the cybersexual partners.

The staff of iFriends (www.ifriends.net) wouldn't respond to repeated requests for comment on the discontinued gizmo. But rumor has it that the company is in patent litigation with the one surviving teledildonics company, Virtual Reality Innovations (www.vrinnovations.com) of Windsor, Pa. The two firms had originally discussed a partnership back in 1997, but couldn't reach an agreement, so iFriends went on to its peccadillo with SafeSexPlus.com.

Meanwhile, Virtual Reality Innovations' CEO. chief scientist, and founder, Eric White, asserts that he has been using the now-trademarked brand since 1995, but officially applied for it in November 2000. Unlike all of the dead competitors, White's firm became profitable three

Web-based service that required live human beings on both ends of the equation - typically, a female would perform on a Website and a male would pay for the privilege of having cybersex with her. But bandwidth concerns impelled White's firm to take the CD route instead, to prevent technological coitus interruptus. In fact, if the video signal drops for some reason, the toy will continue to do what it was last instructed to do, unless the user unplugs the whole setup. White's setup, like those of his late rivals, consists of a black box that plugs into a computer and sports three outlets for sex toys to plug into, along with a standard electrical cord to power the peripheral.

Meanwhile, the sex toy has been through several iterations, beginning with attempts to get dildo manufacturers to build devices according to Virtual Reality Innovations' design specifications. The first of these arrangements was with Topco, which ultimate-Iv used White's blueprints to create RoboSuck

about one year after talks broke off. Like the name suggests, this penile sheath purports to simulate fellatio - although Convergence, Inc.'s Levine reports that a rash of customer complaints forced him to post a disclaimer on his site noting that RoboSuck guzzles batteries and breaks easily. But that hasn't slowed down sales.

Virtual Reality Innovations also tried to work with Calif.-based toy manufacturer Doc Johnson (www.docjohnson.com), but was similarly frustrated. White wound up taking Topco's parts and adding his own enhancements. Apparently, Topco has long since discontinued the part that White had been refurbishing, so his company now makes the entire device from scratch.

"No one makes a device that has all the variable vacuum systems and stroking like ours does," he boasts. "We change all the settings 4,000 times a second. By combining the variations in the speed, stroke, and intensity,

Machine package aimed at heterosexual women, which will be accompanied by an insertable toy. Additionally, a homosexual version will include gay content along with a penile sheath and a butt plug. The firm is also developing a machine that would replicate a lap dance scenario, and which might also be applicable to a more romantic product aimed at women. In the future, the company might produce a BDSM-oriented package, as White is currently talking to a German vendor of dominatrix video games, along with an even kinkier outfit that makes violet wands and other electrical-shock toys.

"We thought of all of these alternatives when we originally conceived the product, so we designed it with an open interface. Our interface is capable of operating anything with a small motor," says White.

"As far as I know, we're the only teledildonics company that has a live product." White concludes. "The best description for most

Webmasters bounced back. Unlike the multiple sections of Remote Control Sex Toys, Barrows Company has just a single preview page that links to a few adult content pay sites. Barrows claims to be preparing a suite consisting of Mutual Masturbator software that runs on the computer, a hardware box called Master Masturbator and a penile sheath called CyberBlowiob.

The descriptions of these parts resemble the components of the late Digital Sexsations and SafeSexPlus. And Barrows also promises Second Skin, a full-body suit akin to the one that Vivid discontinued. White thinks the similarity is so close that the text might have been lifted from the aforementioned offerings. although it's possible that these two could be a reincarnation of these efforts, possibly through an acquisition of the remnants of these concerns.

The closest thing to originality promised by Barrows is a one-up of Topco's RealDoll, which

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we can simulate different orifices. The pump we have in it is actually stronger than what we need. We run it at half speed, because if it ran at full speed, it might injure you."

The company is developing a so-called medical product intended to treat premature ejaculation. The package consists of six video segments, providing stop-and-start stimulation for increasingly longer increments of time. "We're still doing some studies on this. and in order to stay within our insurance coverage this project will take a while," says White. "In the adult industry, everyone's always looking over their shoulder because of the Miller Test," the standard for determining whether content is obscene and therefore illegal. "If we have an accepted medical device, then we can put in all kinds of kinky content." Additionally, "if we were more medically oriented, there might be some interest in going public. I'd love to be an overnight millionaire on paper."

Another item on the horizon is a Virtual Sex

other adult products is 'garbage.' They're Chinese imports and they're made poorly. Ours is an engineered, controlled device that we manufacture ourselves. The only people you'll ever see or deal with from the company is me and the publicist. The other people keep their identities a secret - that's how we can recruit and retain good people."

Two other Websites tout teledildonics offerings, yet repeated efforts to contact the companies yielded no results. Such silence could mean that these outfits are either about to pull the plug or about to be acquired by other firms. RemoteControlSextoys.com touts a person-to-person cybersex offering aimed at couples who wish to play over the Net. The Website includes order forms and links to email contacts, but neither option yielded a response, though sources say that wasn't the case in the past.

Another site, www.barrows-company.com. appears to be either a hoax or a possible startup, although repeated e-mails to possible the upstart calls Roxxanne. The preview site describes it as a "computer-controlled lifelike sex doll" that "provides aural and tactile sensations to the user. Roxxanne does not have human-like movement, but certain key body parts are motor driven. In combination with a virtual reality headset, the user could engage in virtual reality sex through the Internet with another person, or with a sort of artificial sexual intelligence."

Even if this offering ultimately comes to fruition and improves on the female sex doll, most experts agree that the industry still has a long way to go before it can truly replicate sexual intercourse with a live human being. And the high costs of building even semi-realistic products means that teledildonics and other haptic-sexual technologies will continue to be the stuff of science fiction and dreams of the future, for many years to come. .

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