Earlier this year, one animated character in Second Life, a popular online fantasy world, allegedly raped another character.

Some Internet bloggers dismissed the simulated attack as nothing more than digital fiction. But police in Belgium, according to newspapers there, opened an investigation into whether a crime had been committed. No one has yet been charged.

Then last month, authorities in Germany announced that they were looking into a separate incident involving virtual abuse in Second Life after receiving pictures of an animated child character engaging in simulated sex with an animated adult figure. Though both characters were created by adults, the activity could run afoul of German laws against child pornography, prosecutors said.

As recent advances in Internet technology have spurred millions of users to build and explore new digital worlds, the creations have imported not only their users' dreams but also their vices. These alternative realms are testing the long-held notions of what is criminal and whether law enforcement should patrol the digital frontier.

"People have an interest in their property and the integrity of their person. But in virtual reality, these interests are not tangible but built from intangible data and software," said Greg Lastowka, a professor at the Rutgers School of Law at Camden in New Jersey.

Some virtual activities clearly violate the law, like trafficking in stolen credit card numbers, he said. Others, like virtual muggings and sex crimes, are harder to define, though they may cause real-life anguish for users.

Simulated violence and thievery have long been a part of virtual reality, especially in the computer games that pioneered online digital role-playing. At times, however, this conduct has crossed the lines of what even seasoned game players consider acceptable.

In World of Warcraft, the most popular online game, with an estimated 8 million participants worldwide, some regions of this fantasy domain have grown so lawless that players said they fear to brave them alone.

Gangs of animated characters have repeatedly preyed upon lone travelers, killing them and making off with their virtual belongings.

Two years ago, Japanese authorities arrested a man for carrying out a series of virtual muggings in another popular game, Lineage II, by using software to beat up and rob characters in the game and then sell the virtual loot for real money.

Julian Dibbell, a prominent commentator on digital culture, chronicled the first known case of sexual assault in cyberspace in 1993, when virtual reality was still in its infancy. A participant in LambdaMOO, a community of users who congregated in a virtual California house, had used a computer program called a "voodoo doll" to force another player's character to act out being raped. Though this virtual world was rudimentary and the assault simulated, Dibbell recounted that the trauma was jarringly real. The woman whose character was attacked later wept—"post-traumatic tears were streaming down her face"—as she vented her outrage and demand for revenge in an online posting, he wrote.

Since then, advances in high-speed Internet, user interfaces and graphic design have rendered virtual reality more real, allowing users to endow their characters with greater humanity and identify ever more closely with their creations.

Nowhere is this truer than in Second Life, where more than 6 million people have registered to create characters called avatars, cartoon human figures that respond to keyboard commands and socialize with others' characters. The breadth of creativity and interaction in Second Life is greater than on nearly any other virtual-reality Web site because there is no game or other objective; it is just an open-ended, lifelike digital environment.

Moreover, Linden Labs, which operates Second Life, has given users the software tools to design their char-
acters and online setting as they see fit; some avatars look like their real-life alter egos, while others are fantastical creations.

This virtual frontier has attracted a stunning array of immigrants. Former senator John Edwards of North Carolina, a candidate for the [2008] Democratic presidential nomination, has opened a virtual campaign headquarters. Reuters and other news agencies have set up virtual bureaus. IBM has developed office space for employee avatars. On May 22, Maldives became the first country to open an embassy in Second Life, with Sweden following this week.

Second Life is intended only for adults, and about 15 percent of the properties on the site—in essence, space on computer servers that appear as parcels of land—have been voluntarily flagged by their residents as having mature material. Though some is relatively innocent, in some locations avatars act out drug use, child abuse, rape and various forms of sadomasochism.

"This is the double-edged sword of the wonderful creativity in Second Life," Dibbell said in an interview.

One user found herself the unwilling neighbor of an especially sordid underage sex club. "Tons of men would drop in looking for sex with little girls and boys. I abhorred the club," wrote the user on a Second Life blog under the avatar name Anna Valeeva. She even tried to evict the club by buying their land, she wrote.

The question of what is criminal in virtual reality is complicated by disagreements among countries over what is legal even in real life. For example, virtual renderings of child abuse are not a crime in the United States but are considered illegal pornography in some European countries, including Germany.

After German authorities began their investigation, Linden Labs issued a statement on its official blog condemning the virtual depictions of child pornography. Linden Labs said it was cooperating with law enforcement and had banned two participants in the incident, a 54-year-old man and a 27-year-old woman, from Second Life.

Some Second Life users objected on the blog that Linden Labs had gone too far.

"Excuse me. You banned two residents, both mature, who did a little role-playing? No children, I repeat no children, were harmed or even involved in that set," protested another user on the Second Life blog. "Since when is fantasy against the frickin law?"

Philip Rosedale, the founder and chief executive of Linden Labs, said in an interview that Second Life activities should be governed by real-life laws for the time being. He recounted, for example, that his company has called in the FBI several times, most recently this spring to ensure that Second Life's virtual casinos complied with U.S. law. Federal investigators created their own avatars and toured the site, he said.

In coming months, his company plans to disperse tens of thousands of computer servers from California and Texas to countries around the world in order to improve the site's performance. Also, he said, this will make activities on those servers subject to laws of the host countries.

Rosedale said he hopes participants in Second Life eventually develop their own virtual legal code and justice system.

"In the ideal case, the people who are in Second Life should think of themselves as citizens of this new place and not citizens of their countries," he said.

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**CONSIDER**

1. Why do you think people commit virtual crimes? What might motivate such acts? Do you think that virtual crimes are ethically comparable to real crimes? Why or why not?

2. How do you react to the fact that Second Life has not evolved into a peaceful and harmonious utopia? Would you expect activities in a virtual world to differ significantly from those in the real one?

3. What is the implication when a story about crime in Second Life appears in The Washington Post, a major national newspaper? Are we taking fantasy role playing too seriously, or does it make sense to consider events in virtual worlds as newsworthy?

**COMPOSE**

4. Choose a mainstream product or corporation and then write an argument to its corporate board of directors urging that it either buy an island in Second Life or avoid the environment entirely.