once every 1,000 years. That sounds disturbing, but Hughes points out that "tsunamis, super storms, and major earthquakes also can come close to obliterating cities or even small countries, and they happen far more frequently." It's better to invest in preparing for those more likely catastrophes, he says. "I don't think detecting small asteroids should be a NASA priority."

But Hughes also knows that human nature is easily frazzled by even the most unlikely events. "Tell people about a risk they've never heard about or thought about," he says, "and they get excited."

Obviously, says the astronomer, the best scenario would provide lots of warning—"ideally a decade or more"—of a coming collision, and

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he thinks such lead times are becoming possible as scientists' ability to calculate orbits improves. The really hard part, he says, is figuring out what to do once the heavenly threat is identified. Hughes'

preferred approach would be to knock it off course by hijacking its steering. He proposes landing a spacecraft equipped with an engine propulsion system on the asteroid. "Then we can switch on the engine," he says. "A low continuous-thrust engine, such as an ion propulsion engine that can get its energy from solar cells, is the most efficient for this kind of task. Not very dramatic, but effective."

Punching the asteroid off course by shooting an object into it—one option mentioned at the Senate hearing—might work, says Hughes, but it won't be easy to fire a missile that has enough momentum to do that. Another possibility would be hitting the object with a radar beam to heat up one side, causing it to release more gas and veer slightly off course.

In the opinion of astronaut Lu, the menu of choices makes deflection easier than detection. "The key," Lu told a Senate committee, "is if you don't know where they are, there's nothing you can do." RB

## Pop Art Is Alive and Well

Molly Rosner (CFA'13) creates graphic design firm staffed with BU students

Molly Rosner wasn't around for pop art's heyday in the 1950s and 1960s, but that hasn't kept the 21-year-old artist and entrepreneur from letting the movement influence every iPhone case, glittery lighter, and canvas that she embellishes.

The recent graduate launched American Dream House to create and market original popart. Rosner (CFA'13) hopes to turn the company's distinct designs, featured on paintings, clothes, and home accessories, into a lifestyle brand akin to West Elm or Tommy Hilfiger.

"I had the vague idea that I wanted to do something my senior year that would launch me into a full-time job," says Rosner, the company's creative director. "I didn't want to work for someone else, so I tried to venture out on my own, and art is something I've always enjoyed because it's fun."

Many of the designs draw on classic Americana imagery, with stylized lines and vibrant colors. One painting, Dew Me, is a close-up of a model, similar to a Vargas pinup, staring at the viewer with large green eyes.

"My art is influenced by the fact that I've always been drawn to graphic patterns, and retro and sparkly things," she says. "I'm influenced by iconic artists like Andy Warhol and Roy Lichtenstein."

Rosner relies heavily on her "dream team" of 29 marketers, graphic designers, and artistsall Boston University students last year-to produce the company's merchandise. She won't reveal specifics about the company's financials, but a painting can run up to \$300 and T-shirts sell for \$25. The merchandise is available for sale at craft fairs and open markets and on the online marketplace Etsy. AL

■ WEB EXTRA Watch a video about Molly Rosner (CFA'13), who introduces her company, American Dream House, and its staff of BU students, at bu.edu/bostonia.

