The IDEAS event, hosted by Autodesk, brought together a collection of scientists, astronauts, engineers, science fiction authors, and thinkers to use science fiction prototyping and determine what design should imagine.

“What is IDEAS?”
I’ve attended the IDEAS event over the years and I’m always struck by the quality of the people they invite—more importantly, I’m impressed by the fact that they make you work. IDEAS isn’t an event where you sit back and listen to smart people talk at you all day. It requires all of its participants to engage, interact, and come up with new ideas.

“The whole concept behind the IDEAS event is to curate a collection of minds and interesting people doing important things.” Jonathan Knowles, Autodesk’s Director of Strategic Initiatives and the event’s host, told me. Smart, funny, and welcoming, Knowles seems to know pretty much everyone on the planet. “We use the event to understand new spaces or areas we should explore. We want to understand how we can come up with new ways to design not only the world of today but also the world of tomorrow.”
world of the future. We need to be more thoughtful in these visions for the future. How can we think about what we’re imagining and apply it with intent? That’s the goal of this particular IDEAS event.” (You can hear the full interview at www.computer.org/computer.)

And this is why I was at NASA Ames on this particular day. The question I wanted to answer was how to use science fiction prototyping to design a better future.

THINGS GET STRANGE

The morning started with a welcome from Jonathan and Tom Wujec, our facilitator for the day, who then introduced IDEAS’ newest sponsor, Byologyc (http://byologyc.com). The company’s handsome young CEO, Chet Getram, took the stage in front of a small banner that read “2021,” and that’s when things started to get really strange.

What followed was a four-hour, interactive, theater-based science fiction prototype. The crew that put on the experience is called the Mission Company. They design and build theatrical and media-based science fiction prototypes that let the audience step into the fiction to experience the future. I met Trevor Haldenby, the group’s Toronto-based leader, a few years ago, so I had some idea of the mind-bending trip we were all about to take.

“Byologyc is an arrogant and greedy company that thinks it knows more about design than anyone else,” Trevor explained to me later. Haldenby’s fictional company Byologyc (@Byologyc) is the basis for the team’s science fiction prototype approach. They use the company to explore possible futures.

The CEO responded by saying that Byologyc is a biotech company that’s pushing the boundaries and ethics of modern science. Its products, including ByoBreath (a breath spray that coats your lungs and increases your oxygen intake by 25 percent) and ByoBaby (tagline: “Because the future is inside you. A whole new way to make a baby. Fertilization. Reinforcement. Equalization.”), explore the moral gray area of synthetic biology.

The Mission Company gave us a view not only into what we want from our new technologies but why we want it. You feel like you’re living in the future, which was made especially clear when we took a quick break and were offered samples of ByoBreath. It’s one thing to read a science fiction short story about the future or a comic book based on science fact that explores the human implications of science, but it’s very much another sensation when someone hands you a science...
fiction prototype and asks you to put it in your mouth.

The prototype that the team cooked up specifically for IDEAS was a good one and uniquely appropriate for its NASA setting. In the full scenario, Byologyc launched a secret space mission to capture an asteroid and bring it into the moon’s orbit so that it could be mined. But something went wrong. The (fictional) affective artificial intelligence (AI) running the mission stopped functioning correctly; it now refused to communicate with the company and had started telling lies.

Next, we learned that a new life form had been found on the asteroid, and it was a hungry one that fed on carbon-based life forms (humans). Programed to value all life, the AI decided to crash the asteroid back to Earth, giving the life form had been found on the asteroid, and it was a hungry one that fed on carbon-based life forms (humans). Programed to value all life, the AI decided to crash the asteroid back to Earth, giving the asteroid back to Earth, giving the life forms on the asteroid, tens of billions, a higher priority than the number of humans on the planet. It was a numbers game that we humans would lose.

The IDEAS attendees split into groups to deal with the situation. Some had to prepare media releases for the possible outcomes, while others pondered the possible new lines of business the situation might provide (remember, Byologyc was described as both arrogant and greedy).

My team was the affective computing team, and we were tasked with learning about the AI and determining what was going wrong. My teammates included Jim Adams, deputy scientist at NASA (see my January 2013 column, “Where Science Fiction and Science Fact Meet,” pp. 80-82), authors Douglas Coupland (Generation X, Microserfs, Generation A) and Ramez Naam (Nexus), and Autodesk's CTO, Jeff Kolwaski.

We worked with the AI while the crisis escalated, forcing us into uncomfortable scenarios and catastrophic outcomes. Ultimately, we were all forced to run outside to see what had landed at NASA Ames. It was not pretty, and people died.

When we broke for lunch, everyone was tense and nervous. “You know what was interesting about that whole experience?” one of the attendees asked me, after taking a bite of pasta salad.

“What’s that?” I queried.

“Well,” he paused. “I have two kids, and the entire time we were working through the Byologyc crisis, I kept thinking to myself that there’s a pretty good chance that someday they’ll actually have to deal with something just like this.”

“What do you think they’d do?” I pushed. “How do you think they’d deal with it?”

“I’m not sure,” he replied thoughtfully. “It’s something I want to talk to them about.”

EXPLORING NEEDS AND FEARS

After the group went through the prototype and recovered over lunch, we dove into a series of talks and discussions fueled by the experience. I spoke about the process of science fiction prototyping; my talk followed an entertaining one by Nathan Shedroff, a pioneer of experience design whose book Make It So explores the interfaces of nearly every science fiction movie ever created. Shedroff and his coauthor Chris Noessel have watched a lot of these movies—if not all of them—and describe what they can teach us not only about design but also about the societies and systems in which they were created.

Following the geek-fest that was Nathan and my presentations, the group got down to some serious science. One standout thinker was Ramez Naam, a science fiction author who came out of Microsoft and the high-tech industry.

It was only natural for Naam to get into science fiction. In the tech industry, he was a program manager: “I was always planning the next project,” he explained to me during a break. (You can hear our full interview at www.computer.org/computer) “It made perfect sense to me to start writing fiction about possible futures.”

Naam’s most recent book, Nexus (2012), is about what happens when people can use a drug to link their brains together. “The technological premise of Nexus is about linking brains together with nanobots, but really it examines the questions of control and ownership,” Ramez explained. “It asks what’s allowable and what’s not. It applies to today but still examines the questions we’ll need to ask in the future.”

The novel has been a commercial and critical success, and Naam is finishing up its sequel. I asked him what he was hoping to capture in the story. “Well, typically when we design products or technologies, the way we communicate them to people is dry and technical. Fiction emotionally engages the reader. It shows awesome or terrible things that could happen. Science fiction prototyping allows us to explore the consequences of that technology. It starts and ends with consumer needs and fears.”
Nouveau Vu

Douglas Coupland is best known for his first book, Generation X: Tales of an Accelerated Culture. Written in 1991, the novel defined the generation that followed the baby boomers and coined the term “Gen X” to describe it. Eighteen years later, Coupland released his 13th novel, Generation A (2009), the title of which came from a 1994 Syracuse University commencement address by Kurt Vonnegut:

You young twerps want a new name for your generation? Probably not, you just want jobs, right? Well, the media do us all such tremendous favors when they call you Generation X, right? Two clicks from the very end of the alphabet. I hereby declare you Generation A, as much at the beginning of a series of astonishing triumphs and failures as Adam and Eve were so long ago.

Generation A is written in the same style as Generation X, but it’s set in the near future—sort of as a science fiction prototype. Coupland’s website describes the book as follows:

In the near future, bees are extinct—until one autumn when five unconnected individuals, in Iowa, New Zealand, Paris, Ontario, and Sri Lanka, are stung. Immediately snatched up by ominous figures in hazmat suits, interrogated separately in neutral and dark chambers, and then released as 15-minute celebrities into a world driven almost entirely by the Internet, these five unforgettable people endure a barrage of unusual and highly 21st-century circumstances. A charismatic scientist with dubious motives eventually brings the quintet together on a remote Canadian island. But their shared experience unites them in a way they could never have imagined.

Generation A explores a realistic-feeling future and seems to occupy a space between global pop culture and the coming future. During a break from IDEAS, I told Coupland that I saw Generation A as a science fiction prototype and asked him how he thought science fiction could affect people. “The thing about the future is that it’s very much like the present,” he answered, “with one thing being different. Fiction can change people’s frames of reference about the world around them. Once you’ve changed that framing of the world, they’ll never see anything quite the same.” (You can hear the full interview at www.computer.org/computer.)

It was that “feeling of the future” that Coupland and I, along with Jim from NASA, spent the rest of the afternoon exploring. As IDEAS wound down, Jonathan and Tom tasked us all to explore a key question: “What should design imagine?” Some groups looked into AI, while others took a deeper look into how to use science fiction prototyping and fiction in the design process. Doug, Jim, and I zeroed in on a very specific feeling: “You know that tingle you get in your brain when you see something for the first time?” Coupland asked, with his finger pressed against his temple. “It’s like a future tingle, kind of like déjà vu, but it’s not the feeling that you’ve been someplace or experienced something before … it’s the exact opposite. You know you haven’t seen this thing ever. It’s like seeing the future.”

“Nouveau vu,” I said. “Déjà vu means already seen, so nouveau vu would be seeing the new.”

“Oh!” Coupland cried and pointed at me. “That’s it! That’s what I live for!”

“Nouveau vu is the feeling you get when your brain meets the future,” I added.

“And nothing will ever be the same again,” Jim smiled.

We then sketched out a quick science fiction prototype for Byological’s newest drug, “Nouveau Vu,” with a possible tagline, “Get that future tingle you love.”

Do you remember the first time you left home and went to summer camp? Do you remember the feeling you had as you drove away? Maybe it was an immersion retreat or the most amazing vacation you’ve ever had. Regardless of the actual event, there’s this feeling you get as you enter back into your normal life. It’s as if you’ve been through something so intense that you’re a different person than when you left just a short time ago. That’s the feeling I had when I jumped into the car and raced to the airport, but it wasn’t just that I was a changed person—it was that my brain had changed. Speeding away, with the massive blimp hangar in the rear-view mirror, the future felt different. I’d like to think for the better.

That’s what imagining the future can do. It’s the role that science fiction prototyping can play in the design of the future, the design of all of our tomorrows. It can give us a way to not only explore our possible futures but also a way to share those visions with each other. We won’t find the answers in these prototypes, but they’ll give us a shared language, and that’s how we’ll build an awesome future that involves us all.