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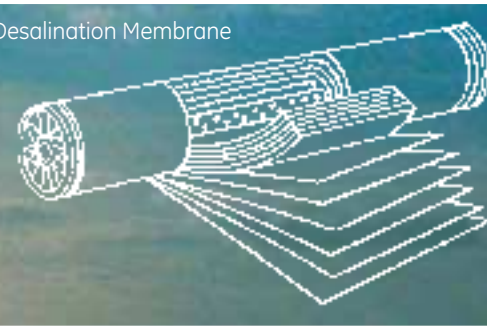

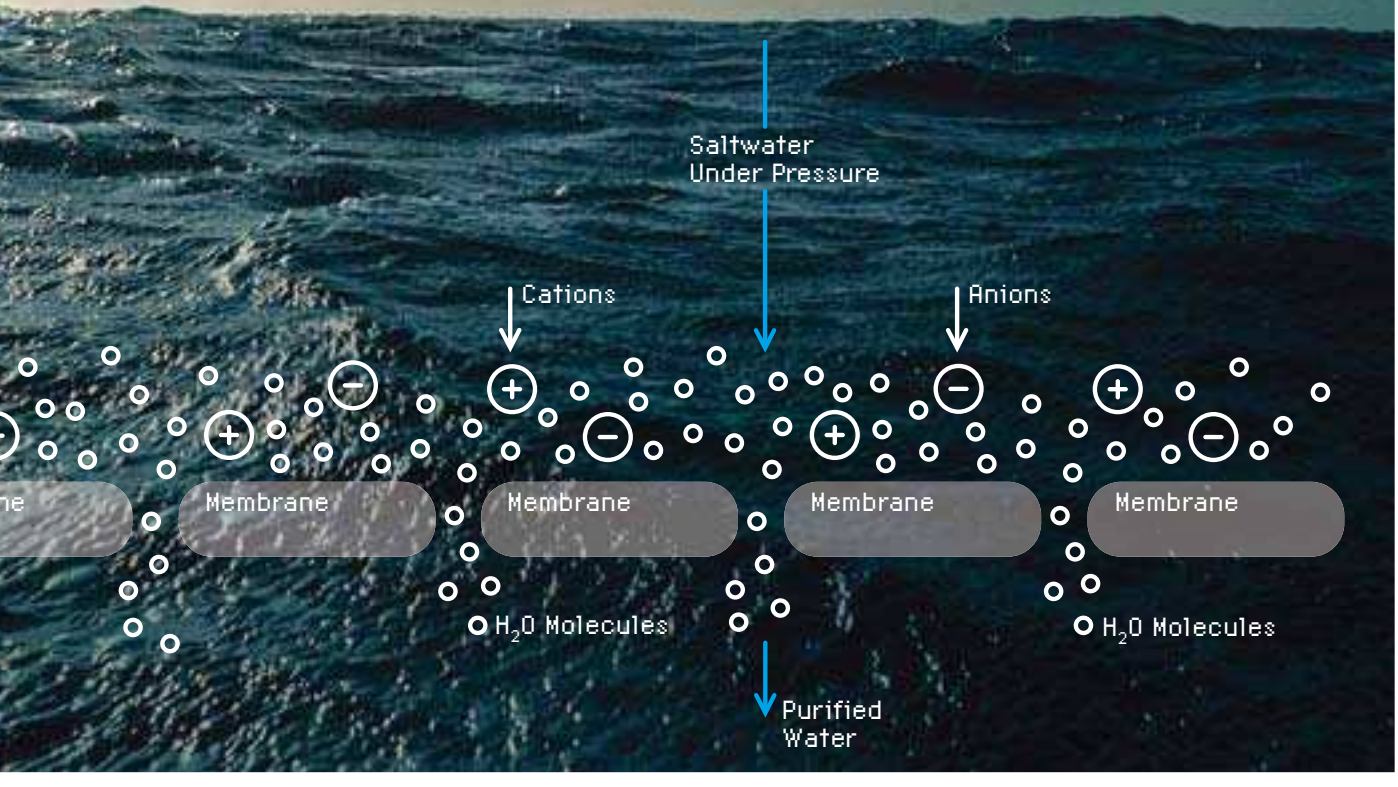

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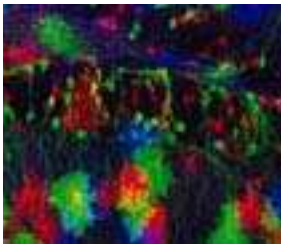

/TR10
Behind every great innovation is a great innovator. We've got video of the researchers who made the TR10 possible, explaining and demonstrating their work. See Harvard professor Jeff Lichtman display his complex brain-wiring diagrams, which are at the core of the emerging field known as connectomics; watch MIT's Marin Soljačić explain the motivation behind WiTricity, a technology designed to charge battery-powered devices wirelessly; view a nanotube radio in action.

/DEMO
This issue's Demo looks at the process that Coskata, a startup based in Warrenville, IL, uses to create ethanol from wood chips, old tires, and garbage. William Roe, Coskata's CEO, walks the reader through the company's lab, explaining how the novel technology operates; Vinod Khosla, one of the world's most prominent venture capitalists and a major investor in Coskata, describes the benefits of the technology.

/HACK
The Kindle, Amazon's new wireless e-book display, could finally convince many readers that the time has come to go digital. In a video demonstration, we explain the working of the Kindle's interface and special features, such as the ability to annotate.

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/DIGITALART
Explore some of the work that the Whitney Museum of American Art's Christiane Paul discusses in her essay about digital art. See the figures in Brody Condon's *Resurrection* move, and watch John Gerrard's *Dust Storm (Dalhart, Texas)* unfold.

COSKATA (DEMO); BRODY CONDON (DIGITAL ART); JEAN LIVET, JEFF LICHTMAN, ET AL. (TR10)

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CONTRIBUTORS

JEFFREY MACINTYRE wrote this month's feature on Photosynth, an application being developed by Microsoft that was demonstrated, to great approval, at the 2007 Technology, Entertainment, Design Conference in Monterey, CA *("Microsoft's Shiny New Toy," p. 76)*. Photosynth can create a navigable 3-D tableau of a place—say, Notre Dame Cathedral—by processing multiple photos of it found on websites such as Flickr. "I was drawn to the story of Photosynth because it sounded so preposterous," says MacIntyre. "I was told someone had broken the frame between what we think of as the media of photography and of video. Photosynth is, in its feel, a hybrid of both, and the early demos excited the imagination of everyone I know who saw them. What's more compelling is that none of us can quite predict where its formal innovations will lead. Photosynth feels like only the beginning of something far bigger." MacIntyre writes on culture, science, and technology for publications such as the *New York Times*, *Wired*, Slate, the *Boston Globe*, and the *San Francisco Chronicle*.

CHRISTIANE PAUL is adjunct curator of new-media arts at the Whitney Museum of American Art in New York City. In this month's essay *("Art Games," p. 82)*, she introduces us to pieces of art that use digital technologies as both subject and medium. "A lot of my work focuses on integrating digital art, which still exists mostly on the fringes of the traditional art world, into 'art at large,'" Paul says. "Digital art has been around for more than 40 years, and its history connects to other media throughout the past century. I am very interested in digital art projects that explore their medium in relationship to more established art forms—such as painting, photography, and video—and show how new technologies are changing our 'image world.'" Paul has written extensively on new-media arts and has lectured internationally on art and technology. A revised and expanded version of her book *Digital Art* will come out this year. She teaches as an adjunct professor in the MFA computer art department at the School of Visual Arts in New York, the Digital+Media Department of the Rhode Island School of Design, the Berkeley Center for New Media at the University of California, Berkeley, and the San Francisco Art Institute.

JENNIFER CHU profiles Marin Soljačić, an MIT physicist who is looking to do for power what wireless networks have done for the Internet: cut the cord *(p. 62)*. Soljačić and his team are developing technologies to wirelessly power devices such as laptops, cell phones, and iPods; their work is celebrated as part of this year's TR10. Inventor Nikola Tesla advocated wireless power transmission back in the 19th century, before vast networks of cables were strung up to deliver electricity around the world. "Now," says Chu, "so many of us carry around wires and chargers along with our various devices that researchers are realizing it's time to shed the weight of these wires." Chu spent six years as a producer for National Public Radio and is now a science writer based in Somerville, MA.

SUE TALLON photographed the image you see on our cover. "We worked on several concepts over the course of a few days," says Tallon. "Sometimes it takes days of playing with materials and sets before you find yourself pulling back to the basic elements of an image or concept."

Born an "Anglo-Argentine," Tallon now lives in San Francisco. She has been a professional photographer for 20 years but considers herself "more of a picture maker than a picture taker."