

Part memoir and part planetary saga, Brown's book invites you into his office, his home and his head. The account of his hard work, long hours and lost sleep reveal a dedicated researcher on a mission. He reflects on love and passion, including a charming account of how he met, courted and married his spouse. We learn about the birth of his daughter and how these domestic elements pierce his life as a scientist.

Brown's confessed crime is his 2005 discovery of Eris, an icy Kuiper-belt object that, by early estimates, was slightly larger than Pluto. What should we call it? If Eris is not a planet then it must drag Pluto down with it into the ranks of non-planethood. If we call it a planet, then Brown becomes one of only four people to have discovered one. Even he is too modest to claim that his name should hang alongside William Herschel, discoverer of Uranus, or Johann Gottfried Galle, discoverer of Neptune.

Actually, Pluto's planet status had been percolating for years. Diminutive size was only one of many factors in its demotion. Pluto's oddly tipped, elongated orbit and its icy constitution also raised eyebrows. With the discovery of the Kuiper belt, the need for an official decision grew urgent. In August 2006, at the triennial meeting of the International Astronomical Union (IAU) in Prague, a formal vote was taken on the definition of a planet.

What emerged was simple yet devastating to Pluto-lovers. Does the body mainly orbit the Sun? Is it large enough to pull its own mass into a sphere? Is its gravity strong enough for it to have (mostly) cleared its orbit of debris? Answer yes to all three and it's a planet. Given the known existence of the Kuiper belt, Pluto (and Eris) would fail the debris-free orbit criterion. And so a new term was invented for round objects that orbit in crowded places: dwarf planet.

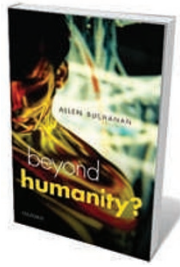
Measurements of Eris's size from a November 2010 occultation may leave Eris slightly smaller than Pluto, instead of slightly larger as Brown had previously determined. Although this revelation has resurrected the efforts of some Pluto defenders, the IAU definition remains robust against arguments of size.

So although Brown did not kill Pluto all by himself, he is guilty of providing wood and nails to construct its coffin. And my museum colleagues and I have someone to whom we can forward the hate mail we still get from Pluto-loving schoolchildren. ■

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Further reading accompanies this article online at go.nature.com/c9ggk9.

Books in brief



Beyond Humanity?: The Ethics of Biomedical Enhancement

Allen Buchanan OXFORD UNIVERSITY PRESS 256 pp. \$25 (2011)

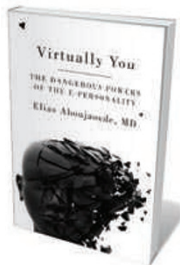
Since humans developed tools, we have sought to improve our performance through technology. Enhancements using biotechnologies should be seen in the same evolutionary context, argues philosopher Allen Buchanan. Increasing our memory, cognitive power, stamina or resistance to disease using drugs and genetic editing offers sufficient benefits to our species that we should set aside objections. He urges that evolutionary biology should be included in ethical debates about biotechnology and enhancement.



Alone Together: Why We Expect More from Technology and Less from Each Other

Sherry Turkle BASIC BOOKS 384 pp. \$28.95 (2011)

The illusion of companionship fostered by technology is the focus of sociologist Sherry Turkle's latest book. From Facebook to robots, she examines how social networks give us 'friends' without the demands of intimacy, and how virtual environments allow us to overcome risk without consequences. Despite taking increasing hold of our lives, she argues, computers and robots will ultimately result in isolation, reduced privacy and diminished social skills. Yet she hopes that, by asking new questions, the young will overcome these downsides.



Virtually You: The Dangerous Powers of the E-Personality

Elias Aboujaoude W. W. NORTON 349 pp. \$26.95 (2011)

Just as the persona we present to our work colleagues and our family differs, psychiatrist Elias Aboujaoude argues that we show a separate character online. From studying patients who have become mentally disturbed through excessive Internet use, he examines the construction of this e-personality, which reveals itself in the style of our e-mails, the users we associate with in our social networks and our online shopping habits. The impatient, urgent and unfocused nature of Internet usage also seeps into our offline world, he argues.



World Wide Mind: The Coming Integration of Humanity, Machines, and the Internet

Michael Chorost FREE PRESS 256 pp. \$26 (2011)

Having relied since 2001 on bionic ear implants for his hearing, science writer Michael Chorost offers a personal account of the borderline between humans and machines. After exploring the technologies that might be used to fix or enhance our bodies, with a focus on brain implants, he argues that such technologies need not depersonalize us. As well as overcoming physical problems, embedded brain chips might one day transform human communication by literally plugging us into the World Wide Web.



Kingpin: How One Hacker Took Over the Billion-Dollar Cybercrime Underground

Kevin Poulsen CROWN 288 pp. \$25 (2011)

Hacker-turned-journalist Kevin Poulsen investigates cybercrime in his latest book. He spotlights a notorious figure who took over a giant online criminal network and siphoned off millions of dollars from the US economy. Sought by the FBI worldwide, the hacker turned out to be security consultant Max Butler. Poulsen portrays both sides of the story and exposes the range of ongoing frauds, from phishing to Trojan viruses to counterfeiting.