

the ill-fated merger, now dissolved, between media giant Time Warner and Internet service provider AOL. But Wu is wary of the rise of 'closed' platform devices that restrict what programs can be used, such as Apple's Mac, iPad and iPhone, compared with open systems, such as the earlier Apple II. He quotes Tom Conlon writing online in *Popular Science*: "Once we replace the personal computer with a closed-platform device such as the iPad, we replace freedom, choice, and the free market with oppression, censorship, and monopoly."

Central in keeping the Internet open is the concept of 'network neutrality', which Wu has popularized: government and information carriers should place no restriction on where, when, what and how users access information. A requirement of net neutrality is that Internet service providers should not use price differentiation to fend off upstarts, to favour their collaborators, or to retain their monopolistic power in new or adjacent fields. But opinions are varied and examples to the contrary abound: the US cable firm Comcast allegedly levied additional fees for video traffic from companies that compete

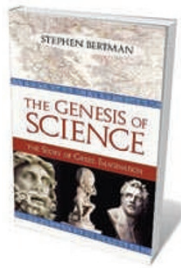
"Should we intervene to protect innovation and a free and open Internet at any expense?"

with its cable business, for example. The British government has also recently announced support for a two-speed Internet. Wu believes that the antiquated competition laws that focus on pricing to protect consumers are inadequate in the information industry, because collusion restricts choices but does not always inflate prices. Rather than legislation, he proposes a 'separations principle', whereby vital components of the information industry are entrusted to different institutions, both public and private. These bodies would apply checks and balances to ensure that control is not given to only a few players. Such an idea is attractive, yet will undoubtedly be difficult to put into practice because of vested interests.

The Master Switch offers powerful lessons from the past for the future of the Internet. Should we let it evolve along its natural trajectory, and risk it becoming temporarily controlled by monopolies until the next breakthrough? Or should we intervene to protect innovation and a free and open Internet at any expense? Perhaps, though, we don't have as much control as we think. Wu cites ancient Chinese wisdom from Luo Guanzhong: "An empire long united, must divide; an empire long divided, must unite. Thus it has ever been, and thus it will always be." ■

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Books in brief



The Genesis of Science: The Story of Greek Imagination

Stephen Bertman PROMETHEUS BOOKS 304 pp. \$27 (2010)

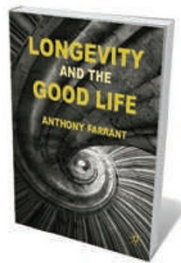
The origins of science in ancient Greece are explored by classicist Stephen Bertman. He looks beyond the familiar names such as Euclid and Pythagoras to lesser-known figures, including the mapmaker Anaximander and alchemist Maria the Jewess, popularly known for inventing the eponymous bain-marie water bath and various pieces of chemical apparatus, including the still. Bertman argues that the Greeks owe their scientific success to their belief in an ordered Universe, the rules of which could be unpicked by the human mind.



Hunger: The Biology and Politics of Starvation

John R. Butterly and Jack Shepherd DARTMOUTH COLLEGE PRESS 360 pp. \$29.95 (2010)

One in seven of the world's population is short of food. Lack of political will is the main reason for not addressing hunger, explain medical scientist John Butterly and environmental scientist Jack Shepherd. As well as describing the biology of human nutrition and famine, they examine the political and historical factors that cause hunger and malnutrition to remain major health problems today despite advances in science and technology and the proliferation of humanitarian efforts.



Longevity and the Good Life

Anthony Farrant PALGRAVE MACMILLAN 256 pp. \$85 (2010)

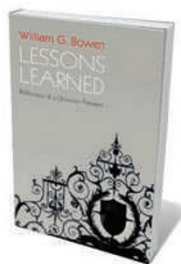
Living longer may not be such a good thing, cautions bioethicist Anthony Farrant. Although breakthroughs in medical biotechnology have the potential to extend our lives and make them healthier, he disputes the idea that immortality is desirable and cautions that the ready availability of such enhancements will diminish the value we put on reaching old age. Increasing longevity will challenge the fair distribution of resources, especially health care. Ultimately, he says, these pressures will undermine the idea that all people are fundamentally equal, and thus threaten the good life.



Man and Woman: An Inside Story

Donald W. Pfaff OXFORD UNIVERSITY PRESS 232 pp. £15.99 (2010)

Gender differences have deep and tangled roots, according to neuroscientist Donald Pfaff. Although genetic and biological factors such as neuroanatomy contribute to this dichotomy, he argues, they do not dominate. Cultural influences, including experiences of stress throughout various stages of our lives, may be just as large and affect males and females in varied ways. Differences between the sexes, both physical and mental, result from a combination of genetics and environment that operates on many levels to influence behavioural mechanisms.



Lessons Learned: Reflections of a University President

William G. Bowen PRINCETON UNIVERSITY PRESS 168 pp. \$24.95 (2010)

William Bowen reflects on the lessons he learned while he was president of Princeton University in New Jersey from 1972 to 1988, and president of the Andrew W. Mellon Foundation in New York from 1988 to 2006. He shares advice on fund-raising, hiring, managing faculty members and interacting with trustees. And he reveals his experience of shepherding the elite university through the civil-rights movement and the Vietnam War, a period during which he helped to expand the faculty, especially in the life sciences.