Krishnan rails against India's rationing of new tuberculosis drugs, such as bedaquiline, and backs up her arguments with horrifying personal stories. But here, the book's chronology can be confusing: for example, the rationing of bedaquiline is introduced and condemned, and Krishnan expresses bewildered outrage that the drug is, for a time, limited to those who live near certain hospitals. Only chapters later does she clearly lay out a key rationale for this restricted access: that researchers were still conducting trials to evaluate the drug's possible toxic effects on the heart. This organization of information creates some confusion.

Still, Krishnan makes a passionate case against the reasoning — trotted out all too often when it comes to treating infectious diseases in resource-poor regions — that people with tuberculosis cannot be trusted to take their medications and therefore should not be given the drugs they need. The conclusion of this flawed argument is that these newer, more effective drugs should be withheld from these populations because misuse could give rise to resistant pathogens that could then threaten richer countries. Krishnan argues effectively against this discrimination and labels it for what it is: racism.

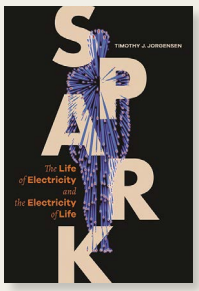
She also takes on charities whose donations of crucial medicines, she says, foster dependence and allow countries to defer the need to establish sustainable supplies. She challenges patents and the biomedical monopolies they protect. Innovation scholars, predominantly at Western universities, spend careers analysing patent data and debating the relative values and costs of a strong patent system. Krishnan is not having it. She dubs support for strong international patents "fact free". To her, their only value is in wringing every cent from countries that lack the resources to fight back.

I sympathize with her passion. Her reporting has led her to people who have lost their hearing, their livelihoods, their loved ones — because, as she argues, they were denied access to vital medicines produced in their own country. But I was disappointed to find no real rebuttal of the counterargument — that those medicines might not exist without the intellectual-property system that enables companies to profit from them. I yearned for her to take such arguments head-on and win.

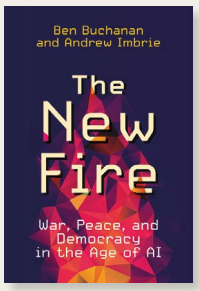
The book is nonetheless a powerful look at the social determinants of health, and the lasting imprint of colonialism and segregation on public health. There is a desperate need for new drugs to combat drug-resistant tuberculosis. Meanwhile, as Krishnan reminds us, existing drugs are not being used effectively or fairly. It is this injustice that will feed the spread of drug-resistant tuberculosis.

Heidi Ledford is a senior reporter for *Nature* in London.

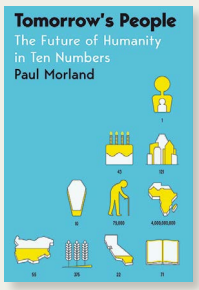
Books in brief



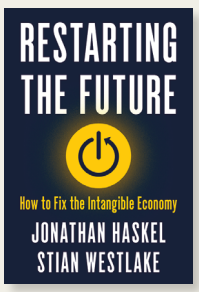
Spark
Timothy J. Jorgensen *Princeton Univ. Press* (2022)
The use of electricity in medicine has long been controversial, notes health physicist Timothy Jorgensen. Eighteenth-century polymath Benjamin Franklin applied shocks to paralysed muscles with temporary success. In the 1930s, neurologist Ugo Cerletti pioneered painful but effective electroconvulsive therapy for schizophrenia and depression. Yet even today, "no one is sure exactly how ECT works", says Jorgensen in his brilliant book. Now, business magnate Elon Musk plans to implant computer chips to treat brain disorders.



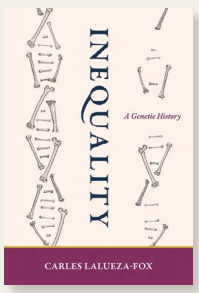
The New Fire
Ben Buchanan & Andrew Imbrie *MIT Press* (2022)
Artificial intelligence (AI) is not like electricity, but like fire, say Ben Buchanan and Andrew Imbrie — academic specialists in emerging technology — in their authoritative, coruscating analysis of its current and future significance. Its potential impact ranges from illuminating to catastrophic, according to three rival and sometimes overlapping views from observers whom they label "evangelists, warriors and Cassandras". "Three sparks ignite the new fire," say the authors: data, algorithms and computing power.



Tomorrow's People
Paul Morland *Picador* (2022)
"To most of us, the influence of demography on our future is far from obvious," writes demographer Paul Morland. City dwellers tend to have low fertility, thereby creating an older population and eventually population decline, which could prompt migration and ethnic change, as in today's United Kingdom — or might not, as in Japan. Morland's careful book discusses ten indicators, one per chapter: infant mortality, population growth, urbanization, fertility, ageing, old age, population decline, ethnic change, education and food.



Restarting the Future
Jonathan Haskel & Stian Westlake *Princeton Univ. Press* (2022)
In the past few decades, growth has stagnated in advanced economies. This is odd, given low interest rates, high business profits and a wide belief that we live with "dizzying technological progress", write economists Jonathan Haskel and Stian Westlake. They argue that the old economic model based on material production fails when it comes to intangible assets — such as software, data, design and business processes — that hinge on ideas, knowledge and relationships. Financial and state institutions must update to cope.



Inequality
Carles Lalueza-Fox *MIT Press* (2022)
Inequality and its origins will always preoccupy humans. In 2014, biologist Carles Lalueza-Fox led the retrieval of a genome from a European forager's skeleton more than 7,000 years old; his later studies revealed genetic evidence of "inequality and discrimination in different times and periods", as he describes in this significant book, written during the pandemic. He concludes by observing that COVID-19 has had an enhanced impact on poor people, which he anticipates will feature in future genetic studies. **Andrew Robinson**