

Kismet, the MIT robot, can display a variety of human expressions (left, surprise; right, disgust). When it spots visitors the robot's expression changes to an almost uncannily convincing expression of interest and delight. (It is now able to crane its neck and shift its head from side to side as well, further enhancing its expressiveness.) What happens next depends partly, of course, on the visitors. If they wave their hands close to Kismet's face, it looks annoyed; if they show it bright colors, it smiles; if they don't do anything, it actively seeks something else of interest—unless its fatigue drive is strong enough to induce sleep behavior.

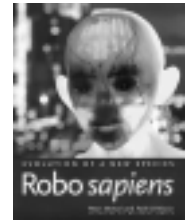
## Robo sapiens Evolution of a New Species

*This debriefing on how robots are being born in small hidden ways is a must-read. Studying its voluminous and gorgeous color photographs, one senses a new species staring back. It's an unbelievable comprehensive portrait of the state of robots on Earth, a view no one else has managed to pull together before. A lot of books promise to be about the future, but this one really is.*

—KK

### Robo sapiens Evolution of a New Species

Peter Menzel and Faith D'Aluisio  
2000, 240 pages  
\$30  
MIT Press



## Nonzero The Logic of Human Destiny

*Robert Wright dashes through ancient history to demonstrate how a certain type of information already present in nature—a type of mutual altruism known in game theory as a "non-zero sum game"—first shaped human societies and gave rise to civilization. This century, the cycles of non-zero games are accelerating, leading our economy to new heights and our culture to new horizons. But one of the many consequences of progress, Wright argues, is that certain forms of culture become inevitable—for instance, mass democracy, or the emerging Internet. The question of whether any technology is inevitable is one of the great unanswered social issues of our time; Wright has the most articulated answer on the politically incorrect side of those who argue that technology determines our fate.*

—KK

Globalization, it seems to me, has been in the cards not just since the invention of the telegraph or the steamship, or even the written word or the wheel, but since the invention of life.

If you explore the murky recesses of just about any famously civilized people, you'll find this dark secret: they started out as barbarians.

Keep your eye on the memes. People and peoples come and go, live and die. But their memes, like their genes, persist. When all the trading and plundering and warring is done, bodies may be lying everywhere, and social structures may seem in disarray. Yet in the process, culture, the aggregate menu of memes on which society can draw, may well have evolved.

...Consider how hard people in nonliterate societies work to etch financial obligations in the public memory. The ostentatious Potlatch seems less absurd when viewed as a way to assemble a large audience to witness the incurring of a large debt.

For to deny any directionality in cultural evolution is to say that the aborigines, or the Shoshone, or the !Kung, left to their own devices, would show no natural tendency to propel their culture toward higher levels of technological sophistication and social complexity.

Today [a] vast interconnectedness, on a global scale, is obvious. But even in the Middle Ages, all of Eurasia and northern Africa had begun to constitute a single data-processing system. A slow system, yes, especially when trade would fall off after political dislocation—but a big system. The iron horseshoe and the windpipe friendly harness seem to have been invented in Asia and then to have leapt from person to person—maybe hitching a ride with nomads for a time—all the way to the Atlantic Ocean.

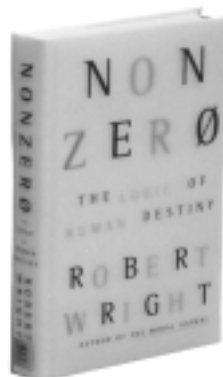
Around the world, the evolution of state-level societies was intertwined with new ways to record and transmit information.

One great way for a village to fend off assault, or to conduct assault, is to ally with another village, a standard tactic among the North Coast Indians. And once this alliance exists, any enemies have good cause to themselves find allies. And so on: an "arms race" of organization that expands the social web outward, weaving more and more villages together.

When kingdoms collapsed, they broke up into regional or local polities, not into anarchy.

Some scholars, comparing ancient states to chiefdoms, have argued that writing led to concentrations of wealth and power. But, strictly speaking, what they mean is that the concentration of writing abilities led to a concentration of power. The question of how far economic and political power would eventually spread beyond the upper classes was partly a question about the future of literacy.

**Nonzero**  
**The Logic of Human Destiny**  
Robert Wright  
2000, 435 pages  
\$27.50  
Pantheon Books



## Finite and Infinite Games

*The wisdom held in this brief book now informs most of what I do in life. Its key distinction—that there are two types of games, finite and infinite—resolves my uncertainties about what to do next. Easy: always choose infinite games. The message is appealing because it is deeply cybernetic, yet it's also genuinely mystical. I get an "aha" every time I return to it.*

—KK [suggested by Stewart Brand]

### Finite and Infinite Games

**A Vision of Life as Play and Possibility**  
James P. Carse  
1986, 180 pages  
\$7  
Ballantine Books



A finite game is played for the purpose of winning, an infinite game for the purpose of continuing the play.

Finite players play within boundaries; infinite players play with boundaries.

To be prepared against surprise is to be *trained*. To be prepared for surprise is to be *educated*.

The death of an infinite player is dramatic. It does not mean that the game comes to an end with death; on the contrary, infinite players offer their death as a way of continuing the play. For that reason they do not play for their own life; they live for their own play.

I can be powerful only by not playing, by showing that the game is over.

Infinite players do not *oppose* the actions of others, but *initiate* actions of their own in such a way that others will play by initiating *their own*.

Evil is the termination of infinite play.

No one can play a game alone.

There is but one infinite game.