Science
Technology
Unity
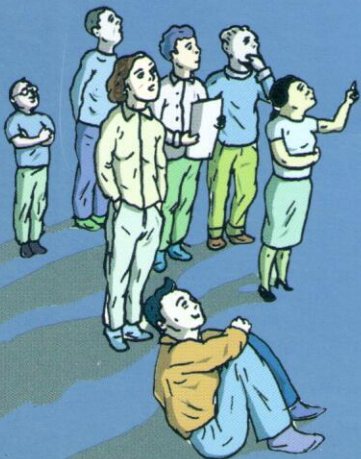
Bug's Life

To date, Internet information has been indexed by "spiders," computer applications that crawl from site to site picking up keywords. An end can be seen to this spider monopoly as computer science Prof. Alfred Bruckstein and his team propose a new breed of Internet search programs – based on the reconnaissance teamwork of the ant kingdom. "Ants use a sort of global intelligence that emerges from very simple rules of local interaction," he says. Instead of programming a single application with a complex navigation system, the researchers propose building a swarm of identical, simple search engines with the ability to forge the best route and communicate their findings to one another.

Talk of Tomorrow

The Technion commands a worldwide reputation for major research advances in communication and information technologies and sciences. Recognizing that the world is in the midst of a communication revolution, the Technion established the Irwin and Joan Jacobs Center for Communication and Information Technologies (CCIT).

A Live Wire

By using the self-assembling properties of DNA, Profs. Uri Sivan, Erez Braun and Yoav Eichen are producing technology that may store the sum knowledge of every book ever printed into an object the size of a one-millimeter cube. Using the live properties of DNA, the scientists have found a way for the tiniest micromechanisms to literally assemble themselves; overcoming a large hurdle in miniaturization.
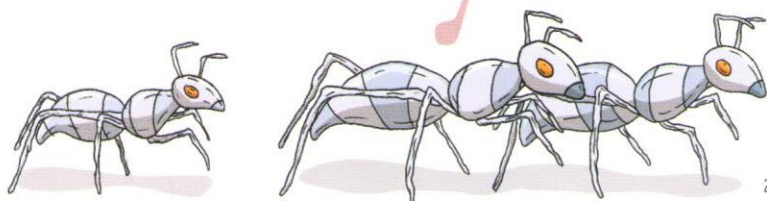
Technology:
1. The science or study of the practical or industrial arts.
2. Applied science.

Prof. Yoav Eichen examines the miniscule dimensions of tomorrow's encyclopedias.
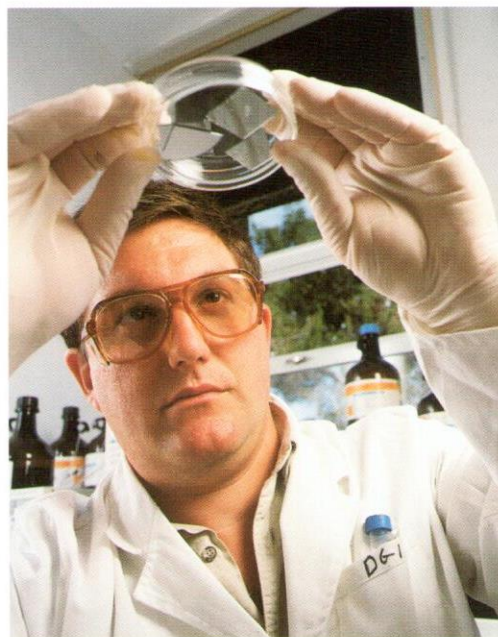
Ant researchers (left to right), Prof. Michael Lindenbaum, Dr. Israel Wagner and Prof. Alfred Bruckstein propose using "ant algorithms" to search for data on the Internet.

Tiny Triumphs

In a formidable intelligence operation, the ants outran the spiders and are now taking over the web.