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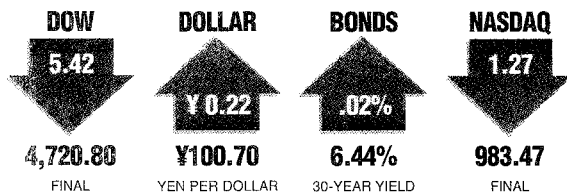
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BUSINESS

MARKETS ♦ HIGH TECH ♦ ECONOMY

Money DIGEST



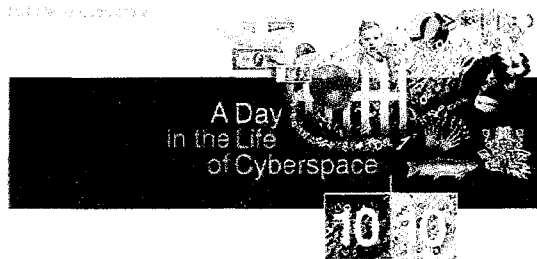
Today's stock market story — Page 6C

S.J., S.F. rank low in housing affordability

In a recent survey, California had 11 metropolitan areas among the 25 least affordable, including last-place San Francisco. No California city made the list of 25 most affordable. The National Association of Home Builders said Tuesday that

1985-1995

DIGITAL DECADE



MIT's computing think tank
chronicles the electronic age

BY SIMSON L. GARFINKEL
Special to the Mercury News

CAMBRIDGE, MASS. — Twenty years ago, Daniel Hillis predicted in a speech at the New York City Hilton that computers would be so cheap that they would be everywhere — in numbers exceeding the world's population. Then a heckler shouted out, "What are you going to do with all of them? It's not as if you

want one in every doorknob."

Recently, Hillis — a longtime executive in the computer industry, returned to the hotel and noticed the new keyless entry systems in each of the rooms. "You know what?" he said. "There is a computer in every doorknob."

Today Hillis is a professor at the Massachusetts Institute of Technology Media Lab, which Tuesday celebrated its 10th an-

niversary. During that decade, the Media Lab has served as a collective think tank for the digerati, helping to make sense of the incredible explosion of electronics, computers and everything digital.

Speaking before a crowd of more than 1,500 people in MIT's Kresge Auditorium, Hillis and other luminaries of the digital age

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Digital decade: MIT think tank looks back

■ DIGITAL

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took a collective look back and a tentative glance ahead.

"For most of the Media Lab's history, we were mostly considered to be icing with no cake," said Nicholas Negroponte, the laboratory's director. But the recent exponential growth of the Internet, the development of the World Wide Web (in which graphics, pictures and sound are transmitted over the Internet), and the dramatic proliferation of computing proves there was substance to the hype after all. Nevertheless, he said, people still have a hard time adjusting to the new reality because people's biological clocks "do not know what it feels like to be growing exponentially."

"Even the most off-the-wall prediction nine months ago is considered conservative today," said Negroponte. "The number of Web sites is doubling every 55 days. Seventy percent of new computers are going into the home."

Negroponte started the Media Lab in 1985. Up until that time, he had been a professor in MIT's Department of Architecture and director of the Architecture Machine Group. Negroponte's vision was to unite the various groups on the MIT campus that were exploring the relationship between humans and computers, and cre-

ate a single center for studying computerized art, media and technology.

Unlike the much smaller Architecture Machine Group, which had been largely funded by the U.S. Department of Defense, the Media Lab was funded largely by corporate sponsors, which fund projects at the Lab and received access to the technology in return. Today more than 100 companies are involved, including Intel, Sony, Philips, NYNEX, Yamaha, Compaq Computer, Knight-Ridder, and the New York Times/Boston Globe.

With its 10th anniversary, the Media Lab is announcing a new research consortium. Called "Things that Think," the goal is to incorporate computational intelligence into everyday objects.

Professor Seymour Papert, inventor of the Lego language, predicted the development of smart objects — for example, balls that would teach people how to juggle. Lego is a computer language that teaches students basic programming skills.

"The smarts are not being used to get a cheap final result," Papert said. "They are being used to change my relationship with the objects that I am dealing with in the world, and through that to change my relationships with myself."

But even though self-juggling balls are still a goal for future

MIT assembles cyberspace family tree

■ CYBERSPACE

from Page 1C

space," is accessible now on the Internet through the address <http://1010.org/>.

"When you turn 10, you look at past, present and future," explains MIT Assistant Professor Michael Hawley, who is in charge of the project. "We thought we would shout out to the rest of the world and ask the world to tell us, or ponder with us, what this digital revolution means and what it might become."

The stories they told reflect how the digital era has forever transformed the way we live.

A woman from Columbia University wrote how she met and fell in love with a man from New Zealand.

research, an astonishing number of research projects demonstrated for the 10th anniversary are reality now:

■ A computer system that can watch a person signing in American Sign Language and speak the signs in English.

■ A technique for turning a Mylar balloon into a speaker and a microphone, allowing balloons placed throughout the lab to become electronic tour guides.

■ An intelligent agent, accessible over the Internet, which asks

the user to rate different musical groups, then recommends more music for the person based on his or her preferences.

Yet the Lab is not without its critics. "The MIT Media Lab is an exciting outpost of technology that only recently has paid any attention whatsoever to content," said Steve Ross, a professor of journalism at Columbia University. "Two years ago, when I was up in Cambridge, the feeling on the part of the propeller heads

Greg Cummings, executive director of The Dian Fossey Gorilla Fund, told how a hand-held Global Positioning System receiver and a radar map of the mist-covered mountains of Virunga in eastern Zaire have helped forest rangers fight poachers. (See <http://deathstar.rutgers.edu/projects.html> for more information.)

"A lot of these [applications] are mind-blowing, but for a lot of people they are everyday life now," says Hawley.

Even Hawley's 80-year-old Aunt Nin in Buffalo has been touched: "Once a month [she] dials a telephone number, holds the telephone up to her chest, and a remote computer diagnoses the pacemaker signals," Hawley says.

was that the Internet was going to replace journalism."

But recently, Ross asserts, the Lab has become aware of the importance of content — especially in this new digital age. "There are probably about seven million Web pages out there, and 6,900,000 are worthless on any permanent basis . . . If you want to know the facts about something that's important to you, and you want to know them reliably, you need a journalist to do it on a consistent basis."