what will be the 10 hottest jobs?

BY JULIE RAWE Looking for a career change? A decade ago, who would have guessed that Web designer would be one of the hottest jobs of 2000? Here are some clues

1 TISSUE ENGINEERS

With man-made skin already on the market and artificial cartilage not far behind, 25 years from now scientists expect to be pulling a pancreas out of a Petri dish. Or trying, anyway. Researchers have successfully grown new intestines and bladders inside animals' abdominal cavities, and work has begun on building liver, heart and kidney tissue.

2 GENE PROGRAMMERS

Digital genome maps will allow lab technicians to create customized prescriptions, altering individual genes by rewriting lines of computer code. After scanning your DNA for defects, doctors will use gene therapy and "smart" molecules to prevent a variety of diseases, including certain cancers.

3 PHARMERS

New-age Old MacDonalds will raise crops and livestock that have been genetically engineered to produce therapeutic proteins. Works in progress include a vaccine-carrying tomato and drug-laden milk from cows, sheep and goats.

4 FRANKENFOOD MONITORS

Not sure what's for dinner? With a little genetic tinkering, fast-growing fish and freeze-resistant fruits will help feed an overpopulated planet, but such hybrids could unwittingly wipe out the food chain. Eco-scouts will be on the lookout for so-called Trojan gene effects, and bounty hunters will help the USDA eliminate transgenic species that get out of hand.

5 DATA MINERS

When Ask Jeeves just won't cut it, research gurus will be on hand to extract useful tidbits from mountains of data, pinpointing behavior patterns for marketers and epidemiologists alike.

6 HOT-LINE HANDYMEN

Still daunted by the thought of reprogramming your VCR, let alone your newfangled DVD? Just wait until your 3-D holographic TV won't power up or your talking toaster starts mouthing off. Remote diagnostics will take care of most of your home electronics, but a few repairmen will still make house calls … via video phone.

7 VIRTUAL-REALITY ACTORS

Pay-per-view will become pay-per-play, allowing these pros to interact with you in cyberspace dramas. Scriptwriters will also be in high demand, as mouse potatoes clamor for new story lines to escape from their droned-out existence.

8 NARROWCASTERS

Today's broadcasting industry will become increasingly personalized, working with advertisers to create content (read: product placement) just for you. Ambient commercials will also hijack your attention by using tastes and smells, with the ultimate goal of beaming buy-me messages directly into your brain.

9 TURING TESTERS

Computer engineers will continue to measure their efforts to mimic human intelligence, as British mathematician Alan Turing suggested 50 years ago, by asking you whether you're talking to a person or a machine. By the time you can't tell the difference, these human simulators will be used as unflappable customer service reps as well as Internet attachés who can summarize your e-mails and even write back: "Hi, Mom, sorry I missed your call … "

10 KNOWLEDGE ENGINEERS

Artificial-intelligence brokers will translate your expertise into software, then downsize you.

Illustrations for TIME by David McLimans
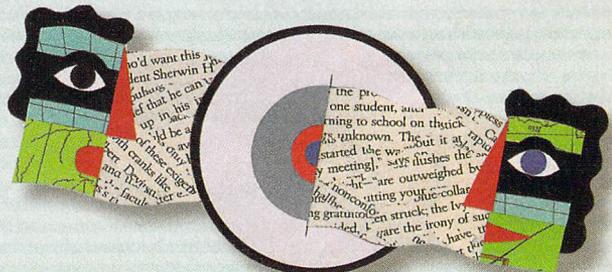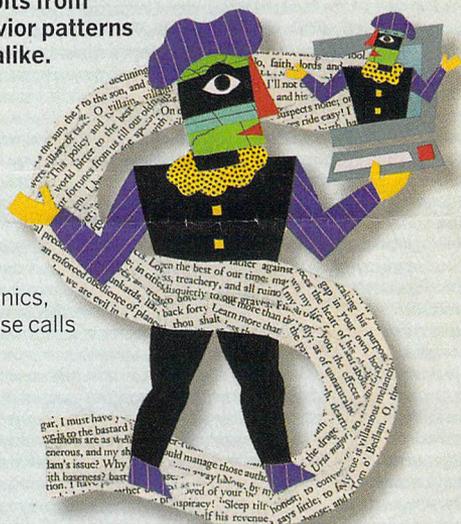
... and what jobs will **disappear**?

1 STOCKBROKERS, AUTO DEALERS, MAIL CARRIERS, INSURANCE AND REAL ESTATE AGENTS

The Internet will eradicate middlemen by the millions, with a hardy few remaining to service the clueless. You'll cut us a deal, right, HAL?
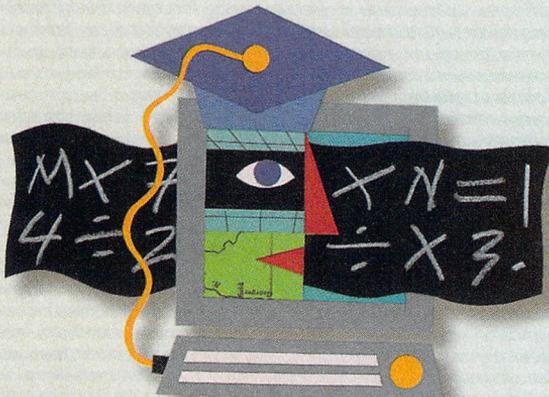
2 TEACHERS

Distance learning is becoming more popular, and through the miracle of online classes and electronic grading, today's faculty lounge could become tomorrow's virtual help desk. Though a complete conversion is unlikely, outsourcing our education system might cost less than installing all those metal detectors.

3 PRINTERS

President Oprah may use her book club to rescue the printing press from extinction when newspapers and magazines make the switch to digital paper. Xerox and other visionaries are racing to produce a material that's as flexible as regular paper and as versatile as a computer screen, with the end result keeping news junkies happy, not to mention all those trees.

4 STENOGRAPHERS

Sophisticated voice-recognition software will replace court reporters and lots of secretaries and executive assistants. Note to self: don't ditch the assistant just yet—technology may cover the grunt work, but who'll cover for you when that report isn't ready or get blamed for the snafu?

5 CEOS

Top-down decision making will be too cumbersome, and golden parachutes too obscene, for the blistering 24-hour business day. A global team of quick-thinking experts will carry companies through the Internet age and beyond.

6 ORTHODONTISTS

No more metal mouth, thanks to 3-D simulation programs that will crank out a series of disposable, clear-plastic "aligners" to shift your teeth into position. Already in clinical trials, this technology is geared for adults, so all you gap-toothed prepubes will have something to look forward to.

7 PRISON GUARDS

Microscopic implants will restrain convicts from engaging in criminal activity. The sensors will require lots of fine tuning, though—we wouldn't want an aggressive telemarketer getting zapped, would we?
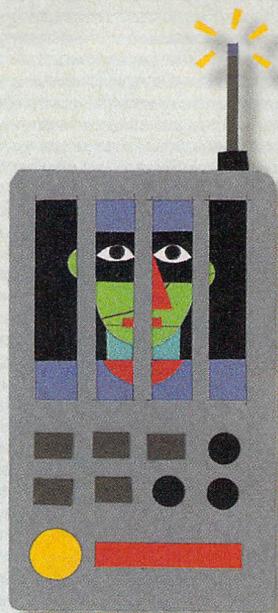
8 TRUCKERS

Interstates will have "smart" lanes enabling computer-driven vehicles to travel bumper to bumper at high speeds. Suburbia will decongest by using bottleneck sensors in cars to suggest alternate routes, and while you can kiss those meter maids goodbye, expect tickets to appear on your virtual dash.

9 HOUSEKEEPERS

If fridges today can decide to buy you more milk (online), then self-motivated vacuums don't sound so far afield. Perhaps self-cleaning homes will use a central vacuuming system or dust-eating nanobots. Either way, you can bet your retirement community there are people working on it.

10 FATHERS

Between in-vitro fertilization and cloning, dads could become dinosaurs. Moms, too, with the possibility looming of an artificial womb. Did somebody say George Orwell?