

Where will the jobs be in 2012?

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The help wanted ads of 2012 will have a scant resemblance to today's classifieds. Job titles more common in sci-fi novels such as space tour guide and molecular engineer will soon become common place.

Tomorrow's employers will put a premium on skilled and semi-skilled workers, especially in computers, health care, science and technology. And there will be job openings aplenty in the trades as baby boomers retire.

Are you ready for the brain race?

Opportunities abound as we become an information-rich society, said Marina Gorbis, executive director the Institute for the Future. With a growing number of video cameras, radio-frequency identification chips (RFID) and sensors gushing data, hot jobs will spring up, creating a demand for people who can cope and build new ways to comprehend it, she said. Your cell phone won't be the only thing that vibrates.

"We're entering an age where every object, every place, is surrounded by digital data. Massive amounts of data will be streaming in every direction," Gorbis said. "The only way we're going to be able to live in this world of massive information is to be able to access it in ways that are more sensory rich. They have to appeal to our senses."

Paul Saffo, a Silicon Valley based technology forecaster, said lifelong learning will be the key to unlocking the future. People should expect to change careers six or seven times in their lifetime.

"This is a brain race," said Saffo. "It's no longer warm and fuzzy. Lifelong learning will be a forced march. If you stop learning, you will become unemployed and unemployable very quickly."

Competitive innovation will produce hot jobs that are hard to imagine now. Synthetic biologists are learning to create organisms to perform specific tasks, said Leroy Hood, president and co-founder of the Seattle-based Institute for Systems Biology. In nanotechnology, systems engineers will fabricate new materials with ideal characteristics at the molecular level, said Frieder Seible, dean of the Jacobs School of Engineering at the University of California-San Diego, which opened a nanoengineering department in July. Engineers are building robots in new shapes and sizes.

Hot jobs of tomorrow

Businesses should anticipate turbulent times, Saffo said.

"The upside is with uncertainty comes opportunity. If you're nimble, surprises become opportunities," Saffo said.

To get a hot job that makes big bucks, think health care or international business, said Lena Bottos, director of compensation at Salary.com. It could bump up your pay by 20 percent or more. It might even double your salary.

Highly skilled health-care professionals, like doctors and specialists, will be in demand because of aging baby boomers, which means big salaries, Bottos said. Health-care careers overall will likely enjoy job security. According to the U.S. Labor Department, 13 of the 20 fastest-growing occupations between 2004 and 2014 are related to health care. Home health aides, medical assistants and physician assistants are in the top five.

In business, professionals with international experience or knowledge — especially in finance or law — will be hot as the emphasis on global trade and business grows, Bottos said. Companies will navigate tax codes, laws, work regulations, environmental regulations and ethical questions worldwide.

“The borders are falling away,” Bottos said.

Governments must address immigration, citizenship and tax issues so workers can travel and collaborate freely, said Rusty Weston, chief blogger at myglobalcareer.com. He points to the rise of the “aerotropolis” — business complexes at airports where jet-setters can fly in, get down to business immediately and stay as long as needed.

“Governments and laws are behind the times,” Weston said. “There needs to be some strategy. Businesses need the talent. ... The job hunters will become the hunted.”

Saffo goes a step further, saying everyone should anticipate living in different countries over their careers to succeed. Hot jobs are worldwide, and the ambitious must follow, especially this generation.

“What we have is global industries, where the center of gravity of industries is moving,” Saffo said. “Anyone who is not fluent in a second language will be at a huge disadvantage even if they never leave this country.”

Right now, the hardest jobs to fill can’t be outsourced or turned over to robots (at least not yet), and they’ll probably still be hot in 2012 because of retiring baby boomers, said Melanie Holmes, vice president of North American corporate affairs for Manpower, a worldwide employment services company. Sales representatives, teachers, mechanics, technicians, managers and truck drivers are the six hardest jobs to fill today, according to Manpower surveys.

The good news: Many of Manpower’s top 10 hardest jobs to fill don’t require a college degree, so they’re more accessible. But that’s part of the problem — the jobs are too ordinary, Holmes said. Delivery drivers, laborers and machine operators, which also made the top 10, are necessary, not glamorous.

“I’m not sure young people have thought of those occupations as attractive,” Holmes said. “Our country needs people who go to trade schools. We’re running out of people like machinists, mechanics and technicians because the people who are doing [those] jobs are retiring.”

In the fast-paced global market, the “clever guys” will command their own price until the talent gap is filled, said Michael Jackson, founder and chairman of Shaping Tomorrow, a British research and analysis service focused on the future. A college degree alone won’t be a free pass to employment anymore.

“Student should be staying ahead and learning about these things, being involved and being engaged,” Jackson said. “They have got to keep learning, keep experimenting and be a part of the team. Don’t be afraid to try something new.”

More information

- U.S. Depart. of Labor: What are the fastest growing occupations?
- U.S. Depart. of Labor: What are the occupations with the most job growth?