

WORKPLACE MATTERS

Jobs of the future reflect emerging technologies

"We face a rapidly changing workplace that must respond to new technology and global trends."

"The job you are likely to do in the future has not been invented yet," says international speaker and futurist Ed Barlow.

We face a rapidly changing workplace that must respond to new technology and global trends. A sampling of emerging occupations being studied by the U.S. Department of Labor gives some interesting insight into the future of work.



Robin Scott

The Occupational Information Network (O*NET) tracks occupations for the Department of Labor and recently published a list of 153 new occupations that show up in large enough numbers to be statistically significant.

If you would like to view the full listing of these occupations, go to www.onetcenter.org/reports/NewEmerging.html.

In the meantime, here is a sampling of these 21st century jobs and the industry trends they reveal.

Biotechnology

New biotechnology occupations demonstrate a greater emphasis on quality and regulatory oversight in that industry.

- ◆ There are regulatory affairs managers and regulatory specialists who ensure compliance with regulations and standard operating procedures.

- ◆ Validation engineers design protocols to produce products that meet safety and quality requirements.

Manufacturing

In the field of advanced manufacturing, emerging occupations reflect the application of new technologies in the manufacturing process.

- ◆ Mechatronics engineers work at the intersection of electrical, electronic, mechanical and computer technologies.

- ◆ Robotics engineers research, design and develop robotic applications in manufacturing.

- ◆ Photonics technicians build and install optical and fiber optic equipment such as lasers.

Education

The movement toward the integration of technology with traditional education delivery systems appears in several new education jobs.

- ◆ Instructional designers and technologists assist in the technology-based redesign of courses. They also help faculty become proficient in instructional technology.

- ◆ Distance learning coordinators oversee the day-to-day operations of remote learning programs.

Finance

Recent concerns on Wall Street influence some occupational trends in the financial industry.

- ◆ Fraud examiners, fraud investigators and fraud analysts coordinate fraud detection and prevention activities.

Green industry

One quarter of the emerging jobs fall into the "green jobs" category.

- ◆ They include biofuels processing technicians, biomass plant technicians, chief sustainability officers, climate change analysts, recycling and reclamation workers, and solar energy systems engineers.

Health care

Another quarter of the new jobs are in the health care field. This is another industry particularly affected by new technologies and cutting-edge research.

- ◆ Genetic counselors assess the risk of genetic conditions in individuals and families.

- ◆ Cytogenetic technologists analyze chromosomes to aid in the study, diagnosis and treatment of genetic diseases.

- ◆ Informatics nurse specialists design computerized health care systems.

Information technology

The information technology industry is always generating interesting new jobs.

- ◆ What teenager doesn't dream of growing up to be a video game designer?

- ◆ Business intelligence analysts devise algorithms to identify patterns and trends in financial and market data.

- ◆ Telecommunications specialists configure voice and data communications systems that allow employees to work from remote locations.

Data storage

And what to do about all of that electronic data we've accumulated?

- ◆ There are data warehousing specialists that program and configure secure database storage systems.

Transportation

In the transportation field, it's all about logistics.

- ◆ There are logistics analysts who analyze delivery and supply chains to more efficiently manage routes.

- ◆ Logistics engineers design and optimize transportation and information networks.

So what's the best way to keep up with all of these changes?

Barlow says, "Ignorance will be our biggest competitor." Stay current with the latest trends in your industry. Read industry publications and Web sites.

Magazines such as Fast Company and The Economist have good information about cutting-edge business trends. And keep your technological skills current by taking courses offered by your industry association, community college or university.

The future will be here before we know it. Be prepared!

If you have questions about training your work force, contact Robin Onaclea Scott, business service coordinator at Lane Workforce Partnership, at robino@laneworkforce.org or (541) 682-7224.