

Megatrends Creating Cutting Edge Careers

US News and World Report - December 4, 2008 - Cutting-edge careers are often exciting, and they offer a strong job market. Alas, the cutting edge too often turns out to be the bleeding edge, so here are some careers that, while relatively new, are already viable and promise further growth.

They emerge from six megatrends:

1) Growing Healthcare Demand

The already overtaxed U.S. healthcare system will be forced to take on more patients because of the many aging baby boomers, the influx of immigrants, and the millions of now uninsured Americans who would be covered under Barack Obama's promised healthcare proposals.

Jobs should become more available in nearly all specialties, from nursing to coding, imaging to hospice. These healthcare careers are likely to be particularly rewarding.

“Health Informatics Specialists”, for example, will develop expert systems to help doctors and nurses make evidence-based diagnoses and treatments. Hospitals, insurers, and patient families will hire **“Patient Advocates”** to navigate the labyrinthine and ever more parsimonious healthcare system.

On the preventive side, people will move beyond personal trainers to **“Wellness Coaches”**, realizing that doing another 100 pushups won't help if they're smoking, boozing, and enduring more stress than a rat in an experiment.

2) The Increasingly Digitized World

- Americans are doing more of their shopping on the Internet
- We obtain more of our entertainment digitally
- Computer games are no longer just for teenage boys, billions are spent by people of all ages and both sexes
- Increasingly, we get our information from online publications (just look where you're reading this)
- Increasingly viewed on iPhones and BlackBerrys

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An under-the-radar career that is core to the digital enterprise is **“Data Miner”**. Online customers provide businesses with high-quality data on what to sell and how to individualize marketing.

Another star of the digitized world is **“Simulation Developer”**. Ever faster Internet connections are helping entertainment, education, and training to incorporate full-motion video simulations of exciting, often dangerous experiences.

For example, virtual patients allow medical students to diagnose and treat without risking a real patient's life. A computer game, Spore, allows you to simulate creating a new planet, starting with the first microorganism.

3) Globalization, Especially Asia's Ascendancy

This should create great demand for business development specialists, helping U.S. companies create joint ventures with foreign firms.

Once those deals are made, “Off Shoring Managers” are needed to oversee those collaborations and the growing number of off shored jobs.

Quietly, companies are off shoring even work previously deemed too dependent on American culture to send elsewhere: innovation and market research, for example.

Conversely, large numbers of people from impoverished countries are immigrating to the United States. So, **“Immigration Specialists”** of all types, expert in everything from marketing to education to criminal justice, will be needed to attempt to accommodate the unprecedented in-migration.

4) The Dawn Of Clinical Genomics

Decades of basic research are finally starting to yield clinical implications. In 2007, it cost \$1 million to fully sequence a person's genome. By mid-2009, Complete Genomics says it will do it for \$5,000, and some experts predict that, within five years, the cost will decline to \$100.

That decline will greatly accelerate medical discoveries and already enables a person to determine if he or she is at increased risk of diabetes, cancer, heart disease, Alzheimer's, and 15 other conditions.

Within a decade, we will probably understand which genes predispose humans to everything from depression to violence, early death to centenarian longevity, and retardation to genius. Such discoveries will likely give rise to ways to prevent or cure our dreaded predispositions and encourage those in which we'd delight.

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That, in turn, will bring about the reinvention of psychology, education, and, of course, medicine. In the meantime, the unsung heroes who will bring this true revolution to pass will include **“Computational Biologists”** and **“Behavioral Geneticists”**.

5) Environmentalism

Alarm about global warming has made environmentalism this generation's dominant initiative. The environmental wave is creating jobs in everything from sales to accounting in companies making green products, regulatory positions in government, and grant writing, fundraising, and litigation work in nonprofits.

Among the more interesting green careers, engineers are working on such projects as:

- Hydrogen-powered cars
- More efficient solar cells
- Coal pollution sequestration systems

But those jobs require very high level training and skills and are at risk of being off-shored. In contrast, the so-called **“Green Collar Specialist”** is off-shore resistant and often needs less demanding training (for example, learning how to do green-building audits). Hands on greenies might consider a career as a **“Solar Installer”**, a career that will likely enjoy increased demand because of government tax incentives.

6) Terrorism

The expert consensus is that the United States will again fall victim to a major terrorist attack. Jobs in the antiterrorism field have already mushroomed since 9/11, but if another attack were to occur, even more jobs would surely be generated.

Demand should particularly grow in such areas as **“Computer Security”** and **“Islamic Country Intelligence”**, but their required skill sets are difficult to acquire.

More accessible yet also likely to be in demand is **“Emergency Planning”**.

For more career options, consult U.S. News profiles of 30 Best Careers at:

www.usnews.com/articles/business/best-careers/2008/12/11/the-30-best-careers-for-2009.html

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