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## Emerging Careers and How to Create Them

## in

## By Cynthia G. Wagner

We can think about our "jobs" as how we earn a living, how we spend our time, or how we find inspiration, but one thing is sure: The nature of jobs is changing along with the corporations, societies, and other environments in which we do the work.

Cameron: I don't know what I'm gonna do.
Sloane: College.
Cameron: Yeah, but to do what?
Sloane: What are you interested in?
Cameron: Nothing.
Sloane: Me neither. ... What do you think Ferris is gonna do?
Cameron: He's gonna be a fry-cook on Venus.
(Ferris Bueller's Day Off, John Hughes, 1986)
In February 1984, THE FUTURIST published one of its most popular articles ever: "Emerging Careers: Occupations for Post-Industrial Society" by psychologist and career counselor S. Norman Feingold. What made the article unique among all of the "how to get a job" pieces that regularly appear in magazines was the focus on trends that were reshaping the world of work and on how individuals could use these ideas to shape their own futures.

The trends that Feingold was tracking at the time included the advancing information and communication technologies that were improving office productivity, as well as the opportunities created by medical breakthroughs and the challenges associated with resource depletion.

The principles on which Feingold based his forecasts for tomorrow's job titles are still sound. The emerging careers he identified (such as genetic counselor, ocean hotel manager, and artificial intelligence technician) all would develop from preexisting career areas and would become possible through advances in technology, changes in the environment, and other megatrends. And the jobs he described were not just momentary fads, appearing and disappearing over a very short period of time. You could forget becoming a "Mood Ring Interpreter."

So with this in mind, the editors of THE FUTURIST felt it was time to revisit some of the megatrends shaping tomorrow's careers and invited several experts and World Future Society members to contribute their thoughts.

Interestingly, many of those megatrends from the early 1980s are still very active: environment and resource issues, accelerating technological development, and the drive to explore (or exploit) the frontiers of ocean and space. So though many of Feingold's forecasted careers are well established (solar energy research scientist, laser technician, aquaculturist), new opportunities are still likely to emerge in these same areas.

## Futuring for Job Creators

One of the easiest ways to begin thinking about future careers is to focus on what may be a problem in the future and invent a job that will solve it. We can do this through trend analysis, applying trends to functions that will need to be performed. Many functions will be more automated in the future, including professional services, but people will still find creative ways of using their skills and talents to make a living.

Here are three basic approaches:

1. Retrofitting: Adding new skills to existing jobs.
2. Blending: Combining skills and functions from different jobs or industries to create new specialties.
3. Problem solving: Necessity is still the mother of invention, and the supply of future problems for people to solve seems limitless.

## Retrofitting: Apply New Trends to Current Careers

Let's take the long-term trend toward space commercialization as an example of an area where new careers could be retrofitted onto existing occupations. As space tourism grows, what services will be needed to support customers and businesses? Other prospective areas of development include construction, energy or other resource harvesting, and general services. Who's going to repair your spaceshoes, make your bed, lead your tour group? How do you get your hair trimmed or styled in space? If you're planning a celestial wedding, who will design your low- or zero-gravity bridal gown?

## The List: 70 Jobs for 2030

The following are sample emerging job titles identified in this special section; we hope the ideas discussed in the section will stimulate your own thinking about the future and the jobs that may be needed in the decades ahead.

- Alternative currency banker
- Amnesia surgeon
- Astro-banker
- Astro-clergy
- Astro-doctor
- Astro-farmer
- Astro-lawyer
- Astro-psychologist
- Astro-teacher
- Augmented reality architect
- Autonomous vehicle operator
- Avatar relationship manager
- Bio-botic physician
- Bio-botist assistant
- Bioregenerative integrator
- Brain quant
- Brain signal decoder (mind reader)
- Chef-farmer (agri-restaurateur)
- Chief experience officer
- Clinical choral consultant
- Clone rancher
- Digital archaeologist
- Digital identity planner
- Drone dispatcher
- Energy harvester
- Environmental health nurse
- Exobotanist
- Exozoologist
- Extinction revivalist
- Financial technologist
- Future-guide
- Global sourcing manager
- Global system architect
- Grassroots researcher
- Gravity puller
- Green career coach
- Healer
- Holodeck trainer
- Mobile biomass therapist
- Office concierge
- Online community organizer
- Organizational quartermaster

Space debris has become an increasing problem as the byproduct of human exploration and exploitation of space; spent rockets, broken parts, and other debris now orbiting the planet get in the way of active satellites and craft. Space junk watchers now track bits of debris, but the future may offer opportunities for space sweepers, space junk recyclers, haulers, and resource reclaimers.

Long-term space habitation means we'll also need astroteachers, doctors, psychologists, lawyers, clergy, bankers, farmers, and yes, perhaps even fry-cooks. We'll also need all sorts of repair persons-or at least the engineers and technicians to build robots with Al to perform these needed functions.

The possibility of finding life forms on Earthlike planets in other solar systems certainly inspires new career possibilities, such as exobotanists and exozoologists to study interplanetary plants and animals.

Back on Earth, other trends suggest retrofitting opportunities. For example, what kinds of jobs can be done by telecommuting? Technological advances as well as social change will create opportunities for jobs that you wouldn't normally think could be done remotely. Can a police officer, for instance, be effective telecommuting? Yes, if it means strengthening ties to his/her own community. Job title: Telecop.

What kinds of jobs can be retrofitted to reduce their environmental impacts? Green career coaches could advise employers/workers about the environmental impacts of their tasks. How could you make beauty salons more eco-friendly? Department stores? Office supply stores? Office Depot, for instance, has been touting its greening efforts.

Energy harvesters will combine construction and engineering to collect the kinetic energy of humans through the materials they come in contact with, from floors to everyday objects, and even clothing. The power created by a single individual could operate his or her personal ICT devices; the power collected by a group (office workers, apartment dwellers) could run a city block.

Another trend that could retrofit existing occupations is the growing incorporation of sensors, batteries, and other technologies into textiles, such as for our clothes. So how are "smart textiles" going to be cleaned or altered? Drycleaners may need to retrain themselves in handling electronics. Tailoring/garment customization will include not only design details bu also communications customizing.

The same issues will affect transportation systems and infrastructure that become increasingly embedded with these echnologies. Job titles could include smart road designer/engineer, sensor control monitor/analyst, smart car interior designer, and smart car interior advertisement sales representative.

## Blending Careers

Another way of looking at trends from a future-career perspective is to make connections among two or more different areas. For instance, blending work in human and environmental health resulted in the emerging field of environmental health nursing, which involves treatment of patients exposed to toxins. After receiving her master's degree in this new field, Sinai Hospital nurse Janel C. Parham used the information "in conjunction with my other passion-maternal/child health. I looked at how all these toxins affected female reproduction and fetal development."

You may be a wonderful sales person but currently working in an industry that is in decline. By focusing on your transferrable skills (persuasiveness, interpersonal communications) as well as your interests (singing, painting), you may be able to create a new occupation in an industry on the rise. Perhaps you would lead music-therapy programs in hospitals or nursing homes as a clinical choral consultant.

While some may not view a return to an agrarian economy as "progress," we have seen a surge of interest in organic and local farming. Today, many urbanites subscribe to a favorite orchard or farm for their supplies of fresh, healthy foods. Merge this with a trend (or perhaps simply a fad) in celebrity chefs, and you have opportunities for agri-restaurateurs (or chef-farmers).

We also see more agricultural activity taking place within cities themselves; people may increasingly choose to spend less time in monetized work ("jobs") and more time producing food for their own and/or their community's needs.

- Personal brand manager
- Personal care coordinator
- Plant psychologists
- Post-normal jobs counselor
- Rationator police
- Residence technician
- Robot polisher
- Robotic earthworm driver
- Robotician
- Seed capitalist
- Sensuality simulator
- Smart car interior advertisement sales representative
- Smart car interior designer
- Smart road designer/engineer
- Smart road sensor control monitor/analyst
- Space junk hauler
- Space junk recycler
- Space resource reclaimer
- Space sweeper
- Talent aggregator
- Telecop
- Terabyter (lifelogger)
- Time hacker
- Transhumanist consultant
- Tree-jacker
- Universal ethics proclaimer
- Unmanned cargo vehicle operator
- Wiki writer


## Doing What You Love

An additional way to create an emerging career is to monetize your passion: Do what you love.

Two brothers, Wilbur and Orville Wright, made bicycles for a living, but they were fascinated by the possibility of flying machines.

In 1903, they succeeded in building the first successful airplane, thus creating a new job for themselves-and eventually jobs for thousands of other people.
-Edward Cornish

Another "blend" opportunity is to become a specialized generalist. For instance, if you want to be a journalist, become a specialized one in a growth sector such as health. Opportunities right now are in business journalism, particularly the finance and investment categories. Look for growth in health and medicine journalism and communications.

Some critics have feared a media future where anyone can write (or create content) for the public without the training and experience in communications theory, ethics, law, and so on. But there will still be a market for ideas and news-i.e., information-that is authoritative, balanced, and useful. This authority-journalism may come from professional experts (e.g., neurosurgeons, astrophysicists, financial advisers) who do cross-training in journalism. They'll assure audiences of their accurate reporting (they'll get the facts right), and they'll communicate in language that everyone can understand. And that's all good, even if traditional outlets for "journalism," like newspapers and broadcast news, disappear or transform into new platforms.

Journalism schools will evolve with these changes; the City University of New York, for instance, has introduced a master's degree program in entrepreneurial journalism that will prepare students for the business and technological environments in which they will be working.

## Problem Solving as Career Opportunity

The communications age brought with it a host of unexpected problems, most notably privacy and security. Facebook and Twitter keep us connected but also vulnerable, often to our own missteps. (Try killing that video of your cowboy-singing karaoke adventure once it goes viral on YouTube.) Enter the new world of digital footprint management.

Elizabeth Charnock, author of EHabits: What You Must Do to Optimize Your Professional Digital Presence and CEO of the digital analytics firm Cataphora, suggests that new career opportunities are rising for those who would help you manage your online image by correcting your blunders. Others (such as prospective employers, political opponents, or spurned lovers) may pay good money to dig up that which you tried to bury, such as an impulsively sent e-mail deriding your co-workers. Job title: digital archaeologist.

Bridging the remaining gap between what our technologies can do for us and what they cannot do is another rich area of problems to solve. As business futurist Edie Weiner has pointed out, science's growing understanding of the human brain is a major area of potential economic growth for the future, whether the goal is to create artificial intelligence or to enhance human lives.

Recent research at the University of Utah with severely paralyzed people enabled bioengineers using implanted microelectrodes to translate the patients' brain signals into words. The method needs improvement in order to help patients who cannot speak due to locked-in syndrome. "This is proof of concept," says lead researcher Bradley Greger. "We've proven these signals can tell you what the person is saying well above chance. But we need to be able to do more words with more accuracy before it is something a patient really might find useful." Future job title: brain signal decoder (or mind reader).

## Putting It All Together

It has been said that "futurist" is (or should be) everyone's second profession, but for many it is their first profession. Futurist was a featured job title in the U.S. Bureau of Labor Statistics' Occupational Outlook Quarterly (spring 2009), which explores a variety of unique job titles in its "You're a What?" series.

Professional futurologist lan Pearson, formerly an engineer with BT Laboratories, describes some of the problems that futurists face when explaining what they actually do for a living.
"The most common [misconception] is that it can't work-no one can predict the future. Ergo, I must be an idiot and wasting their time," he said in an interview with the blog Vault Careers. "In fact, many things are quite predictable, such as progress in technology, and many of the impacts of that technology are pretty obvious too when you think about it."

Where futurists may be able to make themselves most useful in the future would be as what Janna Quitney Anderson described in the January-February 2010 issue of THE FUTURIST: "Maybe what we need is a new employment category, like future-guide, to help prepare people for the effects of disruptive technology in their chosen professions so they don't find themselves, frankly, out of a job."

## About the Author

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