

“Off-peopling” -- A Social Time Bomb Few Hear Ticking

If Offshoring is Dynamite, Off-peopling Is Nuclear Material Ready to Explode

By Richard W. Samson

"Off-peopling," a term a term I've coined to highlight perhaps the most critical trend of our time, is the transfer of human tasks into all-automatic solutions. For example:

- grocery checking into self-service counters,
- assembly work into automated factories,
- surgery into robotic arms that wield scalpels, and
- college teaching into e-learning systems.

It's happening rapidly but in small increments, so we tend not to notice. The press isn't making a big deal out of it, and business isn't looking at it, since profitability today depends on squeezing out human costs.

Off People, Into Technology

Evidence of off-peopling is found in a report released last Fall by the Federal Reserve Bank of New York. It concludes that most of the more than two million jobs lost in the recent recession are not coming back. They've been automated out of existence. New jobs are being created, but we should consider most of them temporary. Companies will keep on trimming human costs to keep competitive. Furthermore, we should not assume that new jobs in growth areas such as education and health care will endure for long. As automation ramps

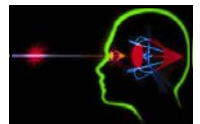
up, jobs in almost all occupational categories will be in jeopardy.

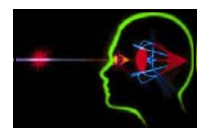
Job disappearance may be observed all around us. It includes --

- airline ticket-counter clerks replaced by ticketing kiosks,
- more and more phone personnel replaced by systems that respond to the spoken word,
- meter readers replaced by wireless recording systems,
- service station attendants replaced by self-service pumps in almost every state, and
- doctors often made unnecessary by health diagnosis information available to consumers on the Internet.

Data from the Bureau of Labor Statistics supports the contention that many jobs have already been lost to electronic encroachment. For example, in 2003 there were 9,700 fewer travel agents than in 1993, attributable to online self-booking systems. The ten-year period saw a loss of 7,600 personnel in commercial banking, due to relentless automation of financial services. Jobs in all categories should have increased 19% during the decade just to keep pace with rising population.

The most compelling evidence for off-peopling is found in data spanning several decades, as reported in my new book





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"MIND OVER TECHNOLOGY." In 1900, it took almost 40% of the workforce to grow our food; now, thanks to technology, it takes less than 2%. In 1940, about 38% of the non-farm workforce worked in the goods-producing sector; now, thanks again to technology, only 17% are needed for this labor-intensive work, and we're on the way to 2%.

While the service sector now embraces more than 83% of the non-farm workforce, most routine service and "know-how" work will disappear within a few decades. Even people-centric fields such as health care are in jeopardy. Japanese firms are developing robotic replacements for nurses, and medical automation is poised to take over many everyday tasks performed by doctors.

Automating human functions can and should benefit everyone, and may do so in time. The trauma of transition, however, could be very severe.

A Bright Future Made Unnecessarily Dark?

Off-peopling, if it proceeds haphazardly, threatens not only employment, but also the innovation and entrepreneurship vital to most small, emerging businesses. By transferring wealth away from the middle class, today's ill-managed off-peopling advantages the large multi-national corporations and disadvantages smaller ones less able to compete for capital and customers. Only certain small companies will be advantaged -- such as those supplying new technology that helps big companies reduce the need for people.

Off-peopling will accelerate as corporations deploy advanced technologies such as Web Services applications, on-demand computing, speech recognition, machine vision, radio frequency identification (RFID) tags, nanotechnology, photonic computing, and self-aware computing. Technology is getting smarter and smarter and we may be shocked at how fast it assumes tasks

that now require human perception, analysis, decision making, action, and communication.

Gradual & Largely Unnoticed

Know-how jobs, like manual ones, will not go away all at once, but task by task. When your position gets streamlined, you may not worry because you've still got your job. Then, bang, suddenly there's the next lay-off on the way to all-virtual business.

The impact on small enterprise will also be incremental but profound. Millions of small businesses and independent contractors -- bravely optimistic following corporate layoffs -- will find their hopes dashed as automated alternatives render their services too expensive. As an example, consider the prospect of plumbers being challenged by cheap install-it-yourself components from China.

If the livelihoods of too many people get disrupted, the fabric of America could start to rip. The consequences could be quite serious and irreversible.

On the positive side, today's manual and know-how employment will (or can) be replaced by "highly human" employment that electronic systems cannot do cheaper or at all. But these new, better jobs and small enterprises won't pop into existence automatically. We have to create them consciously after first seeing that we've got a problem. The current undercurrent of off-peopling, if unnoticed and unmanaged, could lead to an unnecessarily tumultuous, painful period of adjustment.

The Great Depression Part II?

We could find ourselves worse off than during the Great Depression, when a third of the workforce couldn't find work. Except this time, the displaced population might not be so complacent and patient. Partly as a result of economic disruption that has already taken place, America may be ripe for discord.

Consider these disturbing trends:

- **Over two million Americans are already behind bars**, 702 per 100,000 population, a greater proportion than in any other nation. Crime has become the occupation of last resort for many of our people.
- **12.1% of Americans now live below the poverty line**, and the gap between rich and poor has been widening. More people are feeling left out, because they are left out.
- **16.7% of our children live in poverty**. The street is often their school, and we should not be surprised if some view crime as a valid career choice.

Hints of future disruption may be seen in sporadic events such as Columbine, eco-terror arson, citizen militia exercises, and cyber attacks. Small outbursts may portend larger ones.

Millions of Americans sense a future that is pushing them to the sidelines and undermining their ability to contribute or even exist. They don't like it much. For reasons of self-interest if not altruism, America's business and governmental leaders have everything to gain from confronting the off-peopling issue. Creating a more stable, sustainable tomorrow benefits everyone.

Toward an Automated Globe That's Good for Everyone

The world is going to run on automatic. People don't quite know it yet, but they feel intimations of it. They read about airplanes that can fly themselves, and cars that can drive themselves. They hear about compa-

nies building dark factories that don't need lights because they run without any workers in them. And they start to feel uneasy. Reassurance is not forthcoming because our leaders have not even articulated the problem let alone started to address it. In fact, they're doling out bad advice and outdated information. In particular, our educators and young people are being misguided.

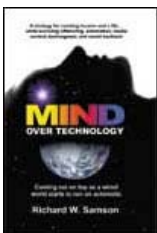
There's a great big time bomb that's ticking, and it's going to explode unless we acknowledge what's happening and do something about it, and fast.

Why are the nation's leaders and the media so myopic and silent? Possible reasons include --

- **The incremental nature of the problem**; gradual shifts are less likely to capture attention than sudden ones.
- **Media preoccupation with Iraq** and more immediate-seeming issues, such as offshoring.
- **Reluctance of corporate executives to broach the issue**, since they are benefiting from the profit improvements of reduced human costs, and think corporate survival depends on it.

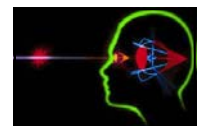
"MIND OVER TECHNOLOGY" offers governmental, business, and individual tactics for addressing off-peopling creatively -- to preserve America's middle class and share the benefits of advancing productivity. Seven "highly human" practices are presented. These are based on skills that computers cannot soon, if ever, take over; and they are the building blocks of next-generation jobs and entrepreneurship.

About "MIND OVER TECHNOLOGY: Coming Out On Top as a Wired World Starts to Run On Automatic" by Richard W. Samson:



Trade paper; 268 pages; ISBN 1-59457-234-8; from Global Book Publisher, a partner of R.R. Bowker. It may be ordered from Amazon.com, Borders.com, Alibris.com, BookSurge.com, bookstores, and by dialing 866-308-6235. A 19-page excerpt is available at www.eranova.com.

Samson, an expert on the mind and technology, is director of EraNova Institute. He has published 10 books and served as consultant to AT&T, Cisco and IBM.



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