



New Economy? What New Economy?

By Kevin Kelly

Dismal scientist Paul Krugman tells the blue-sky crowd to take a cold shower.

MIT economist Paul Krugman likes to stir it up. The 45-year-old scholar and pundit has thrown many a pie in the face of old economics. But before the new economists stopped smirking, Krugman turned and threw pies in their direction, attacking, for example, the originality of Brian Arthur's theory of increasing returns. And yet, Krugman's no mere provocateur. The author of 17 books and numerous technical papers, he has made major contributions to the study of currency collapses, self-organizing systems, and economic geography, popularizing complex ideas along the way. Lately, he seems on a one-man crusade to deflate the new economy hype. In his usual smart-aleck way, he used his *Slate* column to bash Kevin Kelly's article "[New Rules for the New Economy](#)" (*Wired* 5.09, page 140). *Wired* checked in to find out why.

Wired: What are you perplexed by? What are the great puzzles economists are trying to solve these days?

Krugman: Well, the biggest question of all is still, "Why are some countries rich and some countries poor?" Long ago, Bob Solow - the father of growth theory in economics - said that when it comes down to the question of why some countries do well over the long term and some do badly, you always end up in a blaze of amateur sociology. We're a little bit past that, but not much.

Do you think technology is driving economic change?

Ever since the '50s, when economists began thinking seriously about economic growth, technology has appeared to be the big story. In terms of its actual influence, Solow's 1957 calculation for the first half of the century was that close to 90 percent of the long-run increase in per capita income in the United States was due to technological progress. So part of the point is yes, we all think that technology is terribly important. The other thing is that technology tends to be invoked as the explanation for whatever we can't explain other ways.

What's your take on the gap between the large investments in computer technology and the seemingly meager returns - the so-called productivity paradox?

I believe that the payoff to information technology is probably being understated. But in the past it was the investments in other kinds of technology that were understated. We probably didn't really capture all of the gains that came from the automobile or from electrification or from antibiotics.

In some sense it may even be a meaningless question. We talk as if output is a thing and you can simply measure the growth of it. That's a very convenient fiction, but it *is* a fiction. So far, it's not clear anything revolutionary is happening.

You're not convinced that the data show a change as momentous as industrialization in the 19th century?

Not so far. So far the traditional relationships, like the relationships between growth rates and change in the unemployment rate, are still remarkably stable. We've gone from an economy where most people worked in manufacturing - in fairly large companies that were producing manufactured goods and engaged in things like transportation - to an economy where most people work for fairly large companies producing services. That's a change, but it doesn't seem to be the same kind of change that was involved in moving from self-employed farmers to a modern corporate economy.

What kind of evidence would persuade you?

Well, if I saw some really radical change, for example, in the typical form of economic organization - if we really did become a society of self-employed consultants forming temporary alliances doing business over the Internet. In a way that might be a bit of a reversion to an 18th-century type of organization. That is, the small-scale artisan and producer interacting in the market.

You've studied the dynamics of cities. I wonder if you see nation-states becoming more like cities.

I have mixed feelings about all that. The one thing that remains true in the modern world, despite all of the increases in communication and so on, is that the movement of people is very far from free. When you get to an international level, it means that more often the jobs have to move where the people are, as opposed to the people moving where the jobs are, which is what happens within countries. It means that governments retain large power to collect taxes, despite all of the things that people do to avoid them, because ultimately most people are stuck in the country where they are. Until or unless that changes - and it's not clear that anything about modern technology is going to change it - the nation-state remains a very relevant unit. I think the point where computers get smarter than we are may come before nation-states are meaningless. In that case, it's *their* problem.

What myths about the new economy should people relinquish?

Everybody, when they first start to realize that economics can be nonlinear, that you can have large effects from small causes, that things can be dynamic and explosive rather than always tending toward equilibrium - everybody gets really excited. This can be terribly important. But the world is not always as much fun as I'd like it to be; it's always important to pause, take a cold shower, and ask yourself, "OK, that's a really exciting possibility. Is it what's really happening in practice?"

A few years ago, you predicted the coming age of inequality will give way to a golden age of equality. How so?

Right now, the kind of technologies we have are still in their infancy, which means that they are still fairly hard to use, so a lot of people are engaged in the business of actually putting the technologies to work. But if you ask what sorts of jobs are computers and networks going to be able to take over as they become more mature, and what sorts of jobs are they not able to take over, you realize that the answer is: They won't be able to do the kind of things that involve basic human abilities, things like plumbing and gardening and anything that involves contact with the physical world. If you look some distance ahead, you can argue that the long-term impact of information technology is going to devalue abstract symbolic work.

So the wages of a plumber will rise to the level of today's knowledge worker?

That's right. The premium people get for a lot of extra education will decline sharply. It will be a much more egalitarian society.

Kevin Kelly is Wired's executive editor (kevin@wiredmag.com).

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