Deep Retraining and Innovation

Vinton G. Cerf • Google

It's a truism that innovation has the power to create and destroy jobs. One question is whether more jobs are created than are destroyed by innovation. Historically, more new jobs are created partly as a consequence of a growing population (with its increased demands for products and services) and partly because of new demands. The market for mobile phones exploded especially after the invention of Apple's highly popular smartphone, the iPhone, in 2007, but the market has been growing since the mobile phone's introduction in 1983 with the (in)famous Motorola “brick.” With mobiles now numbering in the billions, there has been plenty of work for manufacturers, operators, sales personnel, and device/infrastructure maintenance workers, to name a few.

As new products are invented, sometimes based on new technology and new research results, older products might become obsolescent. We also might see this unfold, albeit slowly, with all electric cars and devices that are part of the Internet of Things. Designing, building, configuring, and using new products could require training and therein lies a potential challenge. Can the workers whose work has been displaced do the new jobs that are created, and are these as remunerative as the older ones? The answer is sometimes “no,” at least, without some re-education.

To technological obsolescence, we can add another factor: longer lives. Between innovative change and the promise of personalized medicine, we might reasonably conclude that we will live and work longer than any generation in the past. This suggests multiple careers over many decades, which leads to my belief that we will be forced by necessity to keep learning new skills and adding new knowledge simply to stay productive. On that point — staying productive — I think it’s also reasonable to conclude that productive lives are the most satisfying and are much to be valued. We’re at our most productive when we love what we do and we do it well (a common combination).

These thoughts lead me to the conclusion that it’s important to know what our strengths are and to learn what we’re good at. Gallup has devised a system called StrengthsFinder (www.gallupstrengthscenter.com). Life is full of surprises, but exploring and building on our strengths can help as we navigate the paths of lifelong learning.

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