

Innovations

It's all about what's next



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Innovations Comments

The future of work is rich in technology and drawbacks

BY **VIVEK WADHWA** November 15 at 9:31 am



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The nature of work and the workplace itself is changing for most of us. (Phil Noble/Reuters)

We check e-mail as soon as we reach home, and sneak a peek at our inboxes along the way. We respond to calls, texts, and messages even while on vacation. At work, we use Cisco Telepresence or [Skype](#) to confer with colleagues all over the world. Companies often allow employees to work from home for one or two days a week; some let them live in remote locations.

This has all become the norm. A decade ago, we could not have imagined being always on, always connected, with work following us wherever we go.

This is just the beginning. The nature of work itself is changing for knowledge workers. During this decade, location will cease to be a barrier; many types of work will be done as micro-tasks; and we will be collaborating in new ways. What will be most problematic is that our employers will make even greater demands on us and further intrude into our lives.

This is the future we are headed into, whether we like it or not.

For our grandparents, “work” was almost always in a factory or on a farm. Today, the farm and factory jobs are performed by a shrinking minority. There are still many jobs in the services sector that require physical work. But increasingly our workforce is performing tasks that are done with the mind—that require knowledge and skill. These knowledge jobs can be assisted by technology.

Note how accounting firms routinely outsource grunt work, as do lawyers, and as do doctors, for tasks such as medical transcription. Not long ago, small and mid-sized projects were outsourced through Web sites such as [oDesk](#), [Freelancer](#), and [Elance](#) — not just to India but also to remote workers in the United States and Europe. A micro-task economy is now flourishing on sites such as [Amazon Mechanical Turk](#), [Samasource](#) and [CrowdFlower](#), in which smaller tasks are farmed out. Big and small tasks such as data handling, Web site development, design, and transcription are commonly done by workers in diverse locations.

Crowdsourcing is making it possible for work to be done simultaneously by many people — no matter where they are. It is becoming possible to solve big problems by using the power of the collective as I just have for *Innovating Women* — a crowdcreated book on how to enable more women to participate in the innovation economy. I tapped into the collective knowledge of more than 500 women.

Businesses are beginning to do this as well. Rather than locking workers in departmental silos, companies on the cutting edge are encouraging employees to start communicating with each other on internal social-media sites. What used to be the quarterly e-mail from the CEO has become a torrent of information-sharing within companies—at all levels. Companies will start designing and developing new products and services by engaging their entire employee base.

Telepresence robots are taking video conferencing to a new level. There are several products on the market, such as [Beam](#) by Sutable Technologies and [Fellow Robots](#), that allow a screen mounted on a mobile platform to move around the office and experience what is happening in a more human way. Imagine walking into your boss's office while you are at home, stepping into a conference room to join a meeting, or chit-chatting with your peers around the water fountain.

Next generation video-conferencing technologies such as [Mezzanine](#) by Oblong Industries are using multiple screens and spatial user interfaces to allow people in different locations to collaborate and share electronic information in a science fiction-like setting. Mezzanine is being developed by John Underkoffler, chief computer visionary behind the film *Minority Report*.

We can expect Google Glass-type devices to bring the computer display to our body — so that we view the screen on our glasses and don't need to sit at a desk any more. I expect future versions to provide immersive 3D experiences that simulate the holodecks we saw in *Star Trek*. And who knows, we may well have holodecks that make it feel as though we are together—but that is getting too far into the future. During this decade, we'll have to settle for 2D interfaces and 3D simulations.

This is all exciting — and terrifying enough. But what worries me is the intrusion that companies will increasingly make into our lives and the burnout we will suffer from always being at the beck and call of our employers. I know from personal experience how hard it is to turn off e-mail and disconnect from social media. This will only get worse for all of us as we become more connected.

And then there will be demands by our employers for us to better manage our lifestyles — so that they can reduce their health bills and get more out of us. Just as companies reward workers who join health clubs and stop smoking, we will see them making greater demands. They will be able to measure what we do because we will increasingly be wearing biometric-monitoring devices such as the Nike FuelBand and Fitbit Flex and our smartphones will be adding new sensors. The new generation of sensor-based devices will continually gather data about our movement, heart rate, weight, sleep, and other health-related matters and upload these to the cloud. Before giving you more sick leave, employers will probably demand that you improve your lifestyle and habits.

All of this may seem like science fiction, but it isn't. The future is happening faster than we think and changing important parts of our existence.

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Steven D Rowe wrote:

11/15/2013 10:51 AM PST

In recent years I have noticed a downside whereby contractors will win a lucrative deal, say web development for \$180 an hour, then sub-contract using a crowd sourcing site for a few dollars an hour. Therefore the original contractor makes a huge profit. Beside that I encourage my staff to work from home as much as the organization allows, we loose too many hours through public transport delays i can get more from my team if they don't have that overhead.

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whodatRX7 responds:

11/15/2013 1:50 PM PST

OK. SUpnose the typical day is 9 AM to 5 PM. Do your people work from 9 to 5 or is commute time considered part of this? I presume not and you pay your people for tiem 'on the job." How do you get more work out of someone in this situation? Perhaps if they work from home the work well beyond any 9 to 5 time frame. Do you pay them for this or is it "free" labor? Do you truly understand how much time it takes to do the work?

Like Liked by 1 reader · Report Abuse



Steven D Rowe responds:

11/15/2013 7:06 PM PST

No one in the organization works beyond their hours at the place of work or home unless pre-approved where they can receive overtime. Overtime is recorded and assessed to judge whether managers need to take on more staff, change project timelines etc. I am totally against anyone working beyond their contracted hours.

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ScottSchlimmer.com wrote:

11/15/2013 8:13 AM PST

Interesting article. One positive - as jobs become less labor/more creative, free thinking and time doing nothing become more important. Eventually, I imagine companies will realize this and the always-connected, 24-hour task mode will slowly give way to a relaxed lifestyle that will spur creativity.

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