

IT Leadership and the 4th Industrial Revolution

By Stephen Morris, Founder and Director, Open Square

What's changing?

The world of work is beginning a truly massive shift. Technologies that only a few years ago seemed infantile are reaching adolescence and, in many cases becoming ubiquitous. It really is a fascinating and exciting time to be alive and in business, and I'm inspired by the potential of these new technologies to fundamentally transform what we, as humans, can achieve.

When I say 'technologies', I'm talking about big data, the Internet of Things, artificial intelligence, cloud computing, robotization, machine learning and so on. Couple these with increasingly reliable, fast and mobile connectivity, universal social networking and consumers endlessly driving for more, the potential is phenomenal. For the companies that embrace and harness these advances, the rewards could genuinely be amazing.

Unsurprising then that many predict a revolution in how we work and how we live. Indeed, according to the World Economic Forum's Founder and Executive Chairman, Professor Klaus Schwab, these changes mark the onset of the fourth industrial revolution, and he thinks this could go much deeper than the previous three, *"even challenging ideas about what it is to be human"*.

How close are the changes?

Let's look at some examples. In familiar service desk environments, we're already seeing artificial intelligence able to handle most chat and voice requests. A service desk event I attended in December 2018 was opened by a robot on stage, and featured demos of artificial intelligence throughout. 2018's Google keynote had the Google Assistant making outbound calls to restaurants and even booking a haircut on behalf of the user. [Link in comments]

Under the many apps, tools and services we use every day, the level of automation and self-management (scaling, healing, security) is increasing and rapidly improving its effectiveness. Back as far as 2013, Facebook's Director of Data Center Operations, Delfina Eberly, commented that each DC engineer can support 20,000 servers on their own. Google, Netflix, Apple, Microsoft and Amazon all have similarly mind-boggling numbers to report. For me personally, my teams that have implemented say, Google's Site Reliability Engineering (SRE) or Continuous Integration / Continuous Deployment practices have seen massive gains, and I'm utterly sold on the value and potential of going even further. My IT origins looking after Novell Netware v3.11 and a first foray into "cloud" (then utility computing) with 56k modems literally lined up in a shed, couldn't feel further away!

What does that mean for IT Leadership?

No doubt, some people will say that "We're used to change!" and "We'll be fine!" or "We survived ... [choose a tech advance/disaster here]", but I'm unconvinced this time. Why so?

I've worked in three cloud-providers in the UK over the last 12 years, and they are undeniably complex. It is difficult delivering great services against a background of massive scale, unpredictable spikes in use, constant updates and changes to tech, undocumented software behaviours, world-first architectures and extremely high impact failures.

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It's even harder finding people that are skilled enough, adaptable enough and creative enough to thrive there, and hiring often felt more like looking for evidence of life on Mars rather than simply picking out a needle from a haystack.

As companies embrace these new technologies to automate, augment and connect their services, the work that many people do will change. The need for low-skill/repetitive work in our teams will diminish further and the need for people to be creative, adaptable and able to keep up will explode. Those people will be in the highest demand, and many won't want to work in a traditional full-time way. Leaders are going to need to get good at rapidly creating, inspiring and delivering with these transient teams.

Because of my career in cloud, I'm proud to have led and worked with some extraordinary engineers, leaders and teams. I know that they will be approaching this wave of change with eyes wide open, surfboards in hand and will probably be smiling broadly, waiting for a 'big one'. They will do fine.

But I also know that many people are facing the shore. Some don't think that the wave's coming, or otherwise that their sand castle is safe just where it is. That's a grave error.

How do I prepare and plan for the changes?

As a leader in any kind of complex IT environment, I urge you to consider this now.

- Are your teams ready and capable of handling significant change? If they aren't, could they ever be? If they could be, what's your plan?
- Do you already plan for and invest in continuous re/upskilling of your people?
- Do you think you can hire the quality of people that you need? If not, what's your plan?
- Will the right kind of people *actually* want to work for your company? If not, what's your plan?
- Are you effective in creating and delivering change within your organisation?
- Are you skilled in effectively creating and leading shorter-term, transient teams?

There isn't a fixed process for where we're going. Get thinking.

About Open Square

We develop IT leaders who want to grow, build amazing teams and deliver better results. We provide skills workshops, coaching and a unique leadership development programme designed specifically for leaders in IT: The Open Leader Method™.

If you would like to find out how we can help you build teams that take more ownership and deliver when everything around them is changing, give us a call or drop us an email for a no-obligation discussion.