
Why the ‘Fourth Industrial Revolution’ Looks Much Like the First



By Benjamin Kessler , INSEAD Knowledge

The tyranny of automation is less scary than the automation of tyranny.

Seen from one angle, “[The Fourth Industrial Revolution](#)” is a marvel of enlightened scientific objectivity. It promises to replace obsolete habits and mind-sets with frictionless, data-driven solutions. Unshackled from analogue-era limitations, organisations and employees alike should be freer than ever to follow pathways to their own flourishing.

So far, it hasn’t exactly worked out that way. At worst, waves of technological disruption have the potential to dehumanise business, both literally and figuratively. The literal level consists of automation that may put [as many as half of all jobs](#) at risk in the coming years. (The COVID-19 crisis adds a dangerous new wrinkle, as the system’s insufficiencies – of leading and organising – are producing flagrant failures to safeguard human lives.) But algorithmic efficiencies can also exert a more insidious squeeze upon the soul of the organisation. Increasingly, employees are dancing

breathlessly to a manic tune orchestrated by machines – with ruthless penalties for those who fall behind.

In some Amazon warehouses, for example, virtually every step workers take is **directed and tracked by productivity-maximising software** for which the fragility of human bodies is a non-factor. A similar sort of draconian micromanagement may be creeping into the white-collar world, fuelled by **keystroke-monitoring apps** that punish “unproductive” behaviours (e.g. listening to music in the background while you work).

The Fourth Industrial Revolution, then, retains some of the exploitative elements that characterised the very first. What’s more, the very term “industrial revolution” has always been something of a misnomer, according to **Gianpiero Petriglieri**, INSEAD Associate Professor of Organisational Behaviour.

“A revolution is any change that alters the power structure,” explained Petriglieri in an interview. “This is not a revolution. It’s a reformation, because it bolsters the existing power structure. The rhetoric of revolution is a cover-up.”

A cover-up perpetrated with unwitting help from several generations of scientific experts, as he asserts in a paper recently published in **Organisation Theory** bearing the provocative title “F**k Science!? An Invitation to Humanise Organisation Theory”.

Neo-Taylorism

Petriglieri’s paper traces the roots of this collusion all the way back to the turn of the 20th century, when mechanical engineer Frederick Taylor introduced the discipline of scientific management (also known as “Taylorism”).

Taylor posited the organisation as a kind of machine, powered by human labour. The ideal Taylorist organisation was, quite simply, one operating at maximum efficiency. Therefore, Taylor’s acolytes touted an absolutist brand of managerial interventionism following rigidly rational principles. Individual freedom, in this analysis, was the currency in which workers were prevailed upon to pay for the privilege of long-term employment.

In the 1930s, the first major rebuttal to Taylorism arose in the form of the human relations movement. Dr Elton Mayo’s ground-breaking “**Hawthorne**

studies", conducted from 1924 to 1933, were the seedbed of now-familiar concepts, such as job satisfaction and worker motivation. Put simply, the movement's core idea was that employees performed better when they derived a sense of personal fulfilment from their work. In other words, the true enablers of high organisational performance were emotional, not rational.

Notice that the human relations movement never questioned Taylorism's ends, only its means. Both doctrines viewed organisations as machines and higher productivity as a given. A cynical observer could view the two as essentially similar species of coercion: one overt and based on compulsion, the other stealthy and secretly hypocritical.

Nearly a century since the start of the Hawthorne studies, little about this dynamic has fundamentally changed, Petriglieri noted in a 2018 essay for **Harvard Business Review**. Countless voices call for business to "rediscover its humanity". But would such a renaissance bolster the status quo or render it subject to radical reconsideration from within?

An "existential moment"

The mutual refusal of "hard" and "soft" science to confront the humanistic void at the heart of business has brought management to what Petriglieri terms "an existential moment". The totalitarian tendencies of business – its lingering Taylorist legacy – loom larger than ever, thanks to political and technological developments.

Big business has arguably become the most dominant force in many societies, subsuming the power of Church and State but not their responsibilities. As a result, the urgent human needs (for security, stability and spiritual nourishment) once met by those institutions must largely go begging.

At the same time, the Fourth Industrial Revolution offers capabilities of surveillance and control beyond Taylor's wildest dreams. In a world where data is the most lucrative product, Facebook (to name just one example) is a factory floor that spans the planet, harvesting vast amounts of personal information for profit – and funnelling it back into the algorithms to drive even more priceless, data-generating clicks.

Digging deeper into history for analogies, Petriglieri says, “Totalitarian systems have two jobs: One is to get inside your mind and put things in it; the other is to take money out of your pocket. These systems fail because of overreach. If you’re in Rome, the army can check you. But in France? As the empire expands, it can no longer control the people and they don’t want to give the money.”

“Technology has removed that problem. You can get inside the minds of people virtually.”

A renaissance of restraint

In the paper, Petriglieri calls for a “second human relations movement” designed to counter “the tyranny of automation – or more precisely, the automation of tyranny”. That wouldn’t entail an attack on present political and technological conditions. Rather than redistributing power, “Human Relations 2.0” could teach business how to wield it responsibly and humanistically.

But the lesson may go hard with the current crop of leaders. The science of management has long revolved around the question “How?” at the expense of “Why?” Widening the discussion to include ends as well as means also opens the door to the most troubling moral and ethical conflicts. The Taylorist routines would suddenly be thrown into doubt. Yet judicious or benevolent restraint – which is key to democratic leadership – is not a concept with which most C-suite execs are comfortable.

In charting a new course, organisations can find guidance in the requirements for human happiness as humanism defines them. Chief among these are the very freedoms automatically relinquished under Taylorism. “It’s a slightly different and inherently subversive way of looking at human relations,” Petriglieri says. “A very engaging system is not necessarily a totalitarian system, because you feel liberated. The system takes individual freedom as one of its primary goals.”

Therefore, the always-on, all-enveloping workplace culture often bemoaned by white-collar professionals could be liberating, if it engendered real satisfactions such as free expression, a personal identity outside of work, and a sense of positive contribution. The [gospel of the grind](#) could serve a genuinely spiritual purpose.

Additionally, those toiling in Amazon warehouses or in the less glamorous sectors of the gig economy could be made to feel like the vital economic actors that they are, given a different regime than the data-driven one that currently governs their working lives.

“It’s true that technology hasn’t fulfilled its promise of revolution and democratisation. That doesn’t mean it couldn’t,” Petriglieri says. “People are still there – they still matter, when they ask themselves complicated questions.”

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