

Management has served us well. Since the Industrial Revolution it has paved the way for a sustained and accelerating rise in living standards unheard of and unforeseen. But with the 'digital revolution', we are entering a new era where the logic of industrial-age organisation has lost its purchase. It is time to reinvent it, says **Richard Straub**

# Management's Second Curve

““

*Tumbling transaction costs alter the economics of organisation and, at a stroke, invalidate old business models while enabling unimagined new ones*

It could be said that what previous great innovations, based on steam, electricity and the internal combustion engine, did for human muscle, computers and sensors linked by the internet are promising to do for the human brain.

Indeed, this has led some in Silicon Valley to talk seriously of the “singularity”, the talismanic moment when the computer power of the machine brain equals or outstrips that of the human variety.

And just as dramatic changes in the human condition brought about in previous revolutions – such as urbanisation, large-scale employment, mass literacy and generalised healthcare – swept away much of the pre-industrial past, the accelerating cycles of digital technologies will, for good or ill, upend much of the socio-economic and mental structures that we have inhabited for the past two centuries.

As Charles Handy notes: “The internet and its corollaries are revolutionising much of our lives, but taking the guts out of many of our institutions as they do so”.

Tumbling transaction costs alter the economics of organisation and, at a stroke, invalidate old business models while enabling unimagined new ones.

New giants such as Amazon, Google, Apple and Facebook, along with emerging upstarts such as Uber and Airbnb, are borne by waves of “winner takes all” network effects that dramatically speed up corporate, and leadership, life cycles. Michael Porter sees the advent of smart connected products as signalling a new spurt of growth and change. And beyond that, the implications for further innovations are simply incalculable. But we can say that no aspect of working or private life will be unaffected.

A foretaste of what is to come is the rapid progress of automation not just in routine manufacturing and service work but also increasingly in knowledge jobs.

In a much-quoted report, the Oxford Martin School in the UK has predicted that over the next 20 years 45% of US jobs are at “high risk” of being automated. As artificial intelligence improves, it will not just be “workers in construction sales and logistics” who feel the employment pinch; managers, scientists, engineers, journalists and others in the “creative industries” will be affected too.

If we continue to take the idea of automation literally (we don’t have to) the “job” in the sense that generations of employees have understood it may be over. At the very least, “we can no longer rely on the institutions of education and the workplace to prepare us for life and look after us during it,” Handy observes.

Yet dazzling as humankind’s technological achievements have been, technology itself is only part of the story. Those achievements are part of, and embedded in, a larger social reality.

Reviewing the history of growth, the Bank of England’s Andrew Haldane notes that, “as far as we can tell historically” the growth spurts in previous innovation phases were the product of “a complex mix of the sociological and technological, typically acting in harmony”.

Alongside technology, increasing social, human and infrastructure capital have all played a part.

This time, though, Haldane notes that while “the technological tailwinds to growth are strong, so too are the sociological headwinds”. These include increasing inequality, faltering educational attainment and a rise in impatient, short-term thinking (as opposed to slow, deep, reflection, in Daniel Kahneman’s classification) – perhaps partly due to technology itself in the shape of information overload.

### The role of management

As Peter Drucker once said, the 20th century was created by management. Like the science-based technologies, the discipline has evolved over time as both cause and effect. Governance, processes, structures, attitudes to customers and employees shift in response to social, financial and technological norms.

In turn, expectations are changed by the transformations that management has helped to bring about. So it should be no surprise that the digital revolution requires it to shift again. In business, too, as Albert Einstein famously observed, “the significant problems that we face cannot be solved at the level that we created them.”

This is not just a question of countering the headwinds (although fostering capital of all kinds is undeniably part of management’s mandate). Digital technology like any other is a means, not an end, and as Henry Mintzberg warns, confusion between the two is a hallmark of the age.

As the stewards of what Drucker called the constitutive elements of modern society – its organisations and institutions – managers have a key role to play in steering the technology revolution in a direction that benefits all humanity, not just the few; and that means a different one from the past.

# 45%

Oxford Martin School in the UK has predicted that over the next 20 years 45% of US jobs are at “high risk” of being automated, as artificial intelligence improves, affecting manual workers through to the “creative industries”

## Measurement, formulas and algorithms – the 20th century model

Thus far, technological change has been guided by management's embrace of scientific rationality and engineering prowess, based on a one-dimensional model of human nature (economic man) and belief in the efficiency of hierarchical command-based bureaucratic organisations.

But it is now clear that this industrial-age management mindset, along with the vested interests it has generated, has become a rock in the pathway of fully realising the digital revolution's huge potential.

This mindset derives on the one hand from the needs of mass-production for standardisation and compliance and on the other from management's own understandable ambitions to be considered a testable and predictive science. But in this it has failed.

To borrow the title of Sumantra Ghoshal's famous article, "Bad management theories are destroying good management practice".

Consider management actions such as cutting jobs and investment as a response to currency fluctuations and the resulting accounting impact of those cuts on earnings per share. Such cuts are applauded as canny, even heroic, by stock markets even as they undermine the longer-term value-creating capacity of the enterprise.

Consider value-creating investments shunned or rationalising mergers undertaken for the same ultimately self-destructive reasons. Share buybacks are too often preferred to investment in innovation, entrepreneurship and value creation. And, as Clayton Christensen and others have shown, internal innovation tends to obsessively target cost-cutting instead of the search for new ways to win over customers and enable employees and partners.

This is the end-point of an implacable logic held together by measurement, formulas and algorithms and increasingly dominated by financial indicators – the 20th century model.



*It is now clear that the industrial-age management mindset, along with the vested interests it has generated, has become a rock in the pathway of fully realising the digital revolution's huge potential*

There is just one problem: the most important indicators – the future-oriented ones related to a company's intangible human assets, which in the knowledge-based economy are far more important than traditional tangible ones – have gone missing in action.

They are the indicators to gauge the levels of trust and social capital within an organisation, and the ability to unleash human creativity and engagement – just the ones, in fact, that are as indispensable to the digital revolution as alignment and conformance were to previous ones. As it is, they are often considered a luxury, the subject for interesting discussions on company programmes that may be discarded if the next quarter's earnings per share is under threat.

Optimists would say that there is a more positive way of viewing these developments, albeit a backhanded one. As Steve Denning powerfully argued at the Peter Drucker Forum in 2014, we may be living through a crossover period where two economies are running in parallel: a small but feisty and rapidly expanding creative "new" economy inhabited by agile, inventive firms bent on doing their best for customers alongside an obsolescent "old" economy made up of established and ponderous corporate titans.

Although the perception endures (rightly) that the latter wields enormous political and financial power, it is based on weak foundations.

Writers such as Gerald Davis and Lynn Stout point out that the universe of US (and UK) publicly quoted companies is thinning out. There are only half as many as 15 years ago and their longevity has shrunk by three-quarters in the last 60 years.

"Entrepreneurs and business people," claims Stout, "recognise that public corporations run according to the principles of shareholder primacy are fragile and dysfunctional entities, incapable of pursuing long-range plans. Shareholder-value thinking appears toxic to many, and perhaps most, public corporations."



### A Darwinian extinction?

If this trend continues, optimists might argue that the problem will solve itself through a kind of economic Darwinism. The dinosaurs will die out; leaving the field to newer more dynamically managed corporate life forms. Yet the old order dies hard and the accumulated system-wide vested interests are strong. They are not just financial.

Jeffrey Pfeffer and others have repeatedly shown how, unlike in the physical sciences, social beliefs can become self-fulfilling. So although most people would probably profess belief in a degree of human altruism, if enough of us come to believe and act to the contrary, as classical neo-liberal economics proposes, what was originally false makes itself true.

"A growing body of evidence suggests that self-interested behaviour is learned behaviour and people learn it by studying economics and business," write Pfeffer and his co-authors.

One thing we can posit with some certainty is that as the first technology and business revolution to be driven by the economists' axioms of self-interest and shareholder value – where the benefits are supposed to be monopolised by one group in society – the digital upheaval is less likely to produce the generalised increase in wellbeing we have seen in previous editions, let alone *eudaimonia*, or human flourishing. Why not? We should hold it as the digital technologies' ultimate goal.

Is it coincidence that this time round even techno-optimists are wondering out loud where the new internet-age jobs will come from and how the decline of the middle classes can be reversed?

It seems unlikely. The great casualty of industrial-age philosophy, it is now clear, is the human being, reduced to just another resource that can be sacrificed to the short-term interests of shareholders and those who see it as their job to serve them.

There are ample signs around us already of the limits of rational logic and algorithmic determinism that does not do justice to complex, dynamic social settings. The digital revolution, the mother of all technology developments, drags the issue centre stage.

We are at a fork in the road. One path – a "second curve", in Handy's parlance – requires a conscious departure from industrial-age management practices and mindsets that currently hold so many companies back. The other extends and hard-wires the existing mechanistic logic in ever more complex data and software routines that would lead us into a downward spiral.

As the Future of Life Institute starkly sums it up: "Technology has given life the opportunity to flourish like never before... or self-destruct".



# 3/4

The universe of US (and UK) publicly quoted companies is thinning out, there are only half as many as 15 years ago and their longevity has shrunk by three-quarters in the last 60 years



## The importance of being human

It does not have to be the latter course. Unlike previous industrial revolutions, history and experience are there to act as guides. We know (although it is easy to forget) that being human is about more than analytical intelligence, which psychologist Howard Gardner has shown to be just one of seven intelligence skills.

Mechanical marvels like modern airliners have to “fly by wire”; not being mechanical, humans do not and should not.

What is most important for humans happens precisely where there is no replicable logic or algorithm. Being human is consciously to bring judgment, intuition, creativity, empathy and values into play. In business, it is the domain of entrepreneurial thinking and innovation, of weighing decisions, of collaboration and trust – qualities that are utterly different from the machine logic of networked sensors and processors.

Researcher Carlotta Perez thinks that as the ultimate “general purpose technology”, digital connectivity could trigger a “new Golden Age”, with the potential to outstrip by far the achievements of the steam, electrical and fuel ages.

But, as this article has argued (and Perez agrees), this is far from an automatic and foregone conclusion. To a large degree the golden (or otherwise) outcome will depend on the choices made by “society’s leadership group”, as Drucker referred to managers – those who are called on to allocate resources on behalf of the economy and of society as a whole.



*Being human is consciously to bring judgment, intuition, creativity, empathy and values into play. In business, it is the domain of entrepreneurial thinking and innovation, of weighing decisions, of collaboration and trust*



## Management’s second curve

The decisions now being taken in labs, C-suites and boardrooms will affect everyone on the planet. To guide them, we need a management that is “good”, in both senses of the word, building on the best in humanity as well as better able to predict and bring about favourable outcomes.

It must acknowledge the reciprocal obligations it owes to society in return for the privileges conferred on the corporations that it runs.

It must put the “creative” back in the process of creative destruction by prioritising investment in customer- and market-creating innovation over short-term profits.

And it must use digital technologies to complement rather than substitute human effort, augment rather than automate human abilities. That is, add machine strengths to human strengths to do things that neither could do on their own, as Tom Davenport has proposed.

In short, management is in need of a second curve that sets a new positive path away from the diminishing returns of the first.

It will require a fresh synthesis of the technocratic logic that currently rules in politics, economics and management with a deep understanding of how the digital disruption is changing the human condition.

This means nothing less than a reframing of management along lines traced by Drucker, Handy and others, combining the very best of art and science, imagination and logic, in a bold and distinctive liberal art that can make practical sense of the 21st century.

*This article was written in the context of of the Drucker Forum 2015 “Claiming our Humanity – Managing in the Digital Age”. More information via [www.druckerforum.org](http://www.druckerforum.org)*



### ABOUT THE AUTHOR

*Richard Straub is Director of Corporate Services at EFMD and President and founder of the Peter Drucker Society Europe. He is also Secretary General of the European Learning Industry Group (ELIG) and Senior Advisor to the IBM Vice President, Global Education Industry.*

**5 | 6 NOV. VIENNA** | Hall of Sciences  
Aula der Wissenschaften



# CLAIMING OUR HUMANITY – MANAGING IN THE DIGITAL AGE

SPEAKERS INCLUDE



- Rachel Botsman** Founder of the Collaborative Lab and author
- Charles Edouard Bouée** CEO Roland Berger Strategy Consultants
- Robin Chase** Entrepreneur, Founder & CEO of Buzzcar, former CEO of Zipcar
- Tom Davenport** Distinguished Professor in Management and Information Technology at Babson College
- Claudio Fernández-Aráoz** Senior adviser at Egon Zehnder and author
- Santiago Iñiguez de Onzoño** Dean Instituto de Empresa Business school
- James P. (Jim) Keane** President and CEO of Steelcase Inc.
- James Manyika** Director, McKinsey Global Institute
- Henry Mintzberg** Cleghorn Professor of Management Studies at McGill University
- Dambisa Moyo** Global economist and author
- Kevin Roberts** Executive Chairman, Saatchi & Saatchi, and Head Coach Publicis Groupe
- Gillian Tett** US Managing editor and columnist, Financial Times
- Sherry Turkle** Professor of the Social Studies of Science and Technology at MIT; Director of MIT Initiative on Technology and Self
- Thomas Wedell-Wedellsborg** Partner at The Innovation Architects; Advisor to BBC WorldWide Labs



**7TH  
GLOBAL  
DRUCKER  
FORUM  
2015**

[www.druckerforum.org](http://www.druckerforum.org)