

The Power of Ecosystems

Richard Straub tracks the growing interest in ecosystems and their profound implications for management education and research and development



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Peter Drucker always said that his interest in management was an offshoot of his preoccupation with the evolving relationship between people and societal institutions – what he came to call the discipline of social ecology.

For Drucker, social, as opposed to biological, ecology, was about a new, man-made ecology of organisations and institutions. And it had a practical aim: to craft a balance between continuity on one side and change and innovation on the other. By spotting emerging trends, managers could act on and shape these forces to the benefit of wider society.

As usual, Drucker was ahead of the game. But the game has moved on as digital technology reshapes, resizes, speeds up and “complexifies” the networks that make up the ecology we exist in today.

Interacting in complicated, non-linear, hard-to-predict ways, those forces are stretching the ecology in unexpected directions and dimensions. The complexity scientist Brian Arthur has written of a hidden semi-autonomous “second economy”, powered by an external algorithmic intelligence, that is steadily encroaching on the physical economy and the jobs it provides .

As we struggle to make sense of these developments, the concepts of ecology and ecosystems can be doubly helpful.

First, they give us a new means of plotting what is happening to organisations and industries as technology dissolves traditional boundaries and forges new links between them. A whole new research literature is growing up to describe and theorise this.

Second, the biological metaphor opens up new avenues for both understanding business as a dynamic, evolving force in society and reframing our thinking about management, replacing the mechanistic, Newtonian assumptions that have long dominated. In this view, organisations regain their long-suppressed identity as evolving human organisms rather than engineered machines. The implications for management education, research and development are profound.

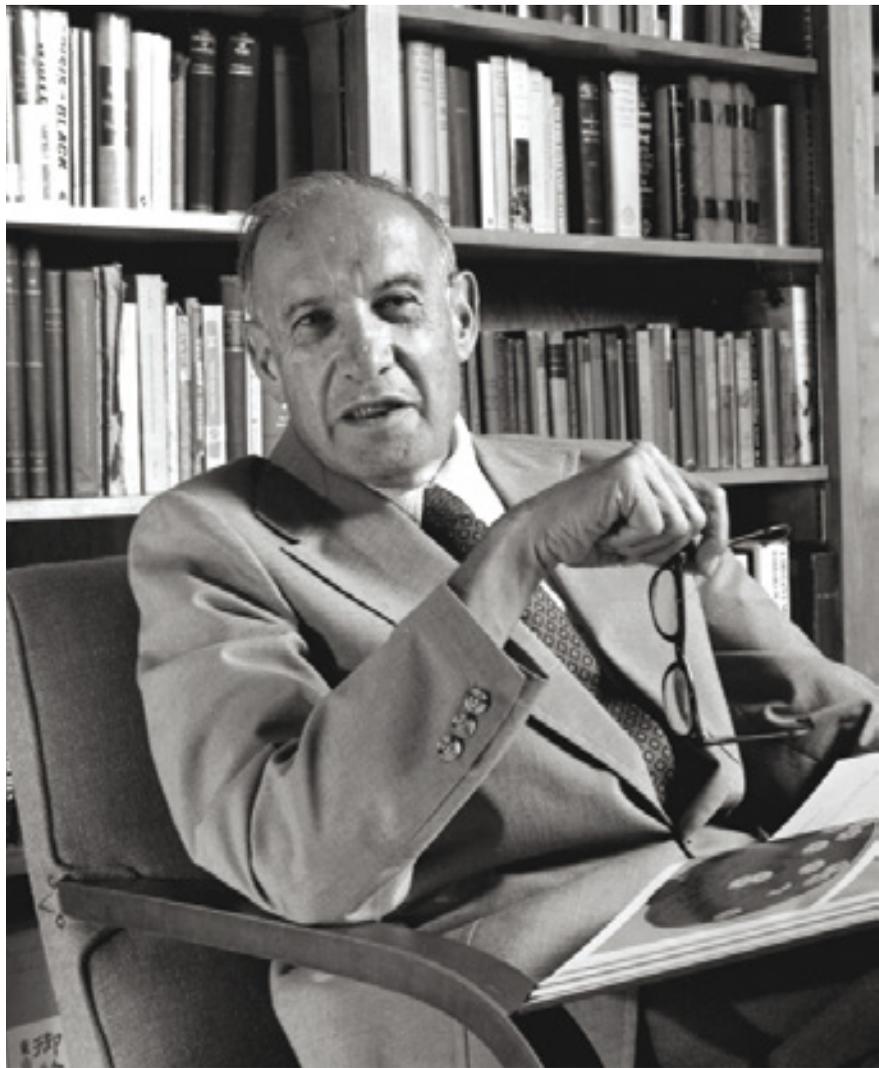
Defining a new paradigm

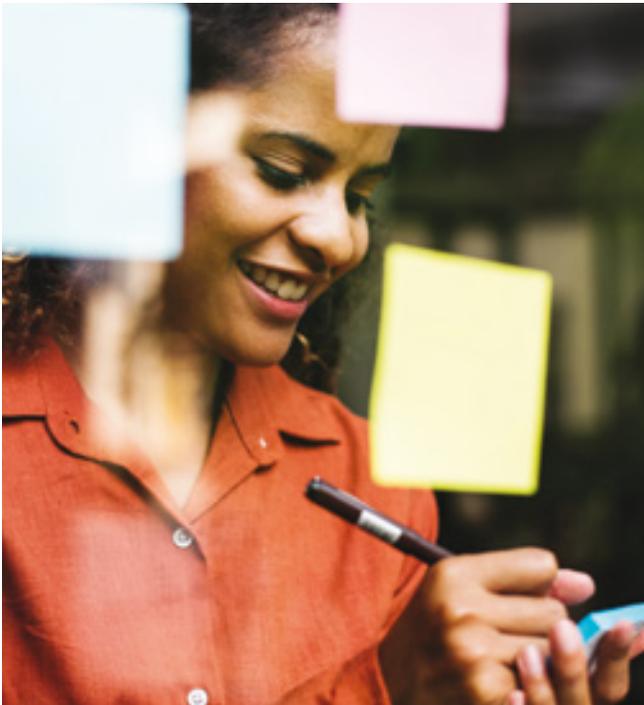
The first essential in this new world is to establish a common language with robust and widely accepted definitions. For global consultancy McKinsey, an ecosystem is “a complex network of interconnected businesses that depend on and feed on each other to deliver value for their customers, to the end users, and their key stakeholders”.

Taking it further, in a recent article John Fuller, Michael Jacobides and Martin Reeves speak of multi-entity groups of companies not belonging to a single organisation. They involve networks of shifting, semi-permanent relationships, linked by flows of data, services and money. The relationships combine aspects of competition and collaboration, often involving complementarity between different products and capabilities (for example, smartphones and apps).

Finally, in ecosystems, players co-evolve as they redefine their capabilities and relations to others over time. Clusters, groups of partly competing, partly collaborating small firms in the same area and industry, may have been the first identifiable proto-ecosystems.

Apple’s IOS app community (now a multibillion dollar business) showed how fast an ecosystem could scale from a digitally enabled platform, paving the way for many others.





Mobility, in which cars are one small on-demand component of the business of getting people from A to B, or C to X, is a much-discussed current example along with health, education and other services that meet the basic needs of individuals and organisations.

Over time, McKinsey sees traditional industry groupings and value chains collapsing into a smaller number of “multitrillion-dollar-large ecosystems with a few large orchestrators, big winners, and a huge shift of wealth and value creation”.

Yet novel man-made ecosystems bring threats as well as opportunities. Like all major shifts, they create winners and losers. Whether natural or social, ecologies can develop pathologies or run out of control; whether we like it or not, they need managing, and in the case of man-made ones, managing them to minimise the bad and maximise the good is a moral duty.

We already perceive some of the emerging dangers. The network effects that underpin developing ecosystems to the benefit of both consumers and producers drive a self-reinforcing winner-takes-all dynamic that has already resulted in a few huge firms dominating swathes of the digital economy.

The ecological lens tells us that an entity that cannot stop growing at the expense of others is a cancer that eventually kills the larger system it is part of. Could the same lens help us to develop smart regulation that would manage network effects without throwing the baby out with the bathwater – allowing the rapid scaling that is intrinsic to its value at the same time as preserving and promoting the vibrancy of a diverse ecosystem?

The challenge for management

What does all this mean for the practice of management in the 21st century?

As we have noted, management theory and practice have long been based on a mechanistic view of the economy peopled by utility-maximising individuals working for profit-maximising companies – human robots and organisational machines.

Yet one of the laws of ecology is that there is no free lunch and all debts have to be paid. Human beings with their emotions, aspirations, dreams and idiosyncrasies do not take kindly to being treated as cogs in a machine; the price paid at organisation level is disengagement, distrust and poor performance and at the level of the individual in stress, unhappiness and unfulfilled potential.

The rationalist dream of a truly scientific management is a mirage. Recall Drucker’s definition of management as a “liberal art” – a far cry from the dry technocratic discipline of management research and education.

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What applies at an individual level also holds good as we move up the systems ladder. This is unfamiliar and challenging territory for most managers. Yet it is at the higher system levels that the greatest prizes beckon.

For example, an economy will function better as a system if incentives, regulations and the social technology of management are aligned with the interests of the broader society – which is manifestly not the case when the stock-market ecology in which large corporations operate is oriented wholly to shareholders at the expense of other stakeholders.

More tangibly, much attention these days focuses on the idea of innovation ecosystems, conceptualised as a kind of man-made evolutionary process. Fast-growing, constantly evolving internet giants such as Amazon, Facebook, Google, Alibaba and Tencent embody this idea. Yet “analogue” and manufacturing firms are also learning to play on the terrain, leveraging brand and reputation assets to pivot towards ecosystems-based opportunities. Apple, Haier and BMW are good examples.

As in a natural ecology, mid-sized and smaller firms can profitably create their own unique niches within the larger ones, using specialisation and deep skills to outflank the data-based, algorithmic brute force of the giants. At regional level, Silicon Valley is the *ur*-innovation ecosystem that every country would like to emulate, so far with varying success.

But the examples of Shenzhen in China and Tel Aviv in Israel show that epicentres for innovation can be nurtured in very different environments. “Smart city” initiatives to improve the lives of citizens are springing up everywhere.

Understanding and building the capabilities to direct these novel entities is a formidable challenge for management. It demands a multi-stakeholder effort – an ecosystem in itself, in which the Drucker Forum is determined to play a part.

Major contributions will also be needed from academia in the shape of both economics departments and business schools, for which

exploration of these new areas should provide a huge research impetus.

In the end it is not regulators and bureaucrats who will save the world but innovators and explorers in business, universities and the public sector aligning with society to shape a balanced, dynamic, social ecology for everyone to flourish in, not just wealth for a few – a historic challenge that we cannot afford to flunk.

A-B

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About the Author

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