The Myths and Realities of Business Ecosystems

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JACK FULLER, MICHAEL G. JACOBIDES, AND MARTIN REEVES

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Behind this semantic overstretch, however, lies a substantive new phenomenon: the rise of dynamic, multicompany systems as a new way of organizing economic activity. Seven of the world’s 10 largest companies, all using technology to disrupt not only their sectors but broad swaths of the economy, now depend on such systems, and ecosystems thinking is more prominent in faster-growing companies across the S&P 500.  

Ecosystems are attractive partly because of the new possibilities they create for products and services spanning traditional boundaries — often using digital platforms, APIs, internet of things technology, and new tools for data gathering and analysis. The growing interest is also driven by necessity: Business environments are evolving more rapidly, requiring the rapid acquisition and coordination of diverse, novel capabilities.

The rise of ecosystems requires a new way of thinking about business — the ecosystems perspective. If we can describe this unique perspective and clear up the myths and confusion surrounding the use of the term, we will put ourselves on good footing to design strategy effectively in ecosystems.

In annual reports, the term *ecosystem* occurs 13 times more frequently now than it did a decade ago.  But like any buzzword, it’s often overapplied. The term has been used to refer to everything from a country (“China is the second strongest ecosystem…”), to a support function (“the HR ecosystem”), a portfolio of products (“the Darico ecosystem is made up of 5 products”), and even a bundle of services intended to make people happy (“a happiness ecosystem”).  

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The Ecosystems Perspective

The essential characteristics of business ecosystems are the following: They are multi-entity, made up of groups of companies not belonging to a single organization. They involve networks of shifting, semipermanent 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 instance, smartphones and apps). Finally, in ecosystems, players coevolve as they redefine their capabilities and relations to others over time.

At a fundamental level, ecosystems provide new ways of managing the trade-off between flexibility and commitment. In general, companies can either make flexible decisions, as in launching a pilot project, or they can commit themselves to a particular strategic path, which is often necessary to reach efficient scale and secure competitive advantage. In an ecosystem, a company can commit to building a platform, like Facebook, but remain flexible about the services it will deliver, by letting others develop and provide those services. Existing capacities can be combined and recombined without one company having to commit to each specific combination in-house. An ecosystem can also explore various new paths in parallel, creating options across the system that a traditional company might not have the resources, time, or risk tolerance to create alone.

Ecosystems can be compared with more traditional ways of organizing production depending on their degree of fluidity. (See “A Spectrum of Organizational Structures.”)

Ecosystems sit between, on one extreme, vertically integrated companies or static supply chains, and, on the other extreme, open, competitive markets, in which customers combine various products according to their shifting patterns of need.

A Spectrum of Organizational Structures

Different organizational structures, along a spectrum of market fluidity, demonstrate the different kinds of relationships companies can have between their products and consumers.

In order to make use of ecosystems, organizations need to shift from using a traditional, static, company-centric perspective, and instead apply new ways of thinking about strategy from an ecosystems perspective. This perspective is distinctive in multiple ways:

• **Dynamic**: Based on a coevolutionary rather than a static view of relationships and capacities.

• **Collaborative**: Driven by crafting novel product combinations drawing on complementary offerings.
• **Influence based**: Shaped by partial influence rather than full ownership or control.

• **Indirect**: Profits from system transactions or involves cross-subsidies, as often monetization occurs indirectly.

• **Emergent**: Generates and embraces unanticipated shifts, reversals, and unintended consequences.

• **Network oriented**: Involves overlapping networks, rather than discrete, linear value chains.

• **Externally focused**: Focuses strongly on activities beyond individual company borders.

### Dispelling the 10 Common Ecosystem Myths

A number of sources of misunderstanding can prevent us from framing or using this new perspective effectively. We can identify myths in four areas: when ecosystems are relevant, what they are, what they do, and how to use them.

### When Is an Ecosystem Relevant?

**Myth 1: You always need an ecosystem.** Much of the advice around ecosystems jumps straight to how to build ecosystem engagement into your corporate strategy, without asking if this is actually necessary.  

Building an ecosystem is a choice; there are many successful companies that do not rely on ecosystems, like EssilorLuxottica, one of the world’s largest eyewear companies, which is highly vertically integrated. The choice for companies depends partly on the capabilities of potential collaborators and the cost of developing specialized capacities in-house.  

The business environment also plays a role. In unpredictable and malleable environments, building an ecosystem can make sense. In more predictable sectors, a classical analyze, plan, and execute approach, relying on static supply chains, is likely a better fit.

Ecosystems are not a solution to every business problem; we should consider what we want an ecosystem to accomplish before setting out to build one. For instance, an ecosystem can be useful when business needs involve:

- Exploring a new area of possibility, conducting parallel experimentation and development with others, especially when you do not possess all the skills to engage in this exploration (for example, groups of companies exploring the possibilities of autonomous vehicles).

- Pulling together a complex offering involving multiple complements, especially when you can benefit by co-opting other actors (consider Spotify’s ecosystem of musicians and events companies).

- Circumventing distribution complexity and cost by building a new, more effective channel (for example, Alibaba Group’s merchants contribute to a shared platform).

- To disrupt an entire industry, giving your model greater scale, scope, and influence by partnering with existing players (for example, PayPal working with established banks).
What Is an Ecosystem?

**Myth 2: An ecosystem is a supply chain.** “Ecosystem” is often used as a synonym for supply chain. Indeed, a set of relationships with suppliers, if collaborative and dynamic, can be an ecosystem. Apple, for example, has shifting, coevolving relations with multiple suppliers. Rather than just buying standardized parts, Apple pours time and money into co-developing new kinds of glass or production-line robots, sending its engineers to test new processes in suppliers’ factories, which feeds back into its own designs. But ecosystems often extend beyond this kind of partnership. Consider Intel’s investments in and relationship with companies that use its microchips — a network extending far beyond its supply chain. We miss the greater value of the ecosystem concept if we restrict our view to suppliers only: An ecosystem can certainly encompass a supply chain and more, or no supply chain at all.

**Myth 3: Ecosystems are always maximally open.**
Discussions of ecosystems often emphasize openness. As a recent *Forbes* article describes, “Companies that want to spearhead or join … ecosystems will aggressively adopt systems that encourage open collaboration.” 10

This emphasis is understandable: All ecosystems are to some degree “open,” as they involve interactions across the corporate boundary. But the degree and kind of openness vary. Any kind of openness comes at the expense of control, and some effective ecosystems are comparatively closed with respect to either new participants or data and intellectual property. For example, Rio Tinto works with an ecosystem of companies to manage its data, including Microsoft, SAP, Accenture, and Avenade — companies the organization has selected to complement itself. The value here does not come from maximizing the number of participants; data is openly shared, but within a very select group.

To take another example, the Sustainable Fashion Alliance is an ecosystem of companies collaborating to shape one another’s sustainability practices. The value they create depends on credibility in this arena — the ecosystem is valuable because it applies strong selection criteria. Openness is a choice: In unpredictable situations when exploration is key, it might make sense to have a more open system. Conversely, it may make sense to have less when more control is required for the system to create value.

**Myth 4: An ecosystem is a digital platform.** In many discussions, ecosystem and digital platform are almost inseparable. Again, it’s easy to trace how this myth came to be, as many ecosystems do involve digital platforms, like Spotify, Facebook, or Airbnb. But this shouldn’t lead us to equate one with the other and ignore the broader set of options that ecosystems provide. Consider pharma company Novo Nordisk, which entered China in 1994. Novo developed an extensive nondigital ecosystem around diabetes — which was then largely unaddressed in China — by engaging the China Ministry of Health, the Chinese Medical Association, universities, physician groups, patience groups, and nongovernmental organizations, by sending buses of experts to rural areas to educate physicians and patients. The company now has $1 billion annual diabetes-related sales in China and 60% market share. A digital platform in this case was not necessary.

Technology can powerfully facilitate the orchestration of multiple players in a complex ecosystem, but successful ecosystems can exist without digital platforms. 11
What Does an Ecosystem Do?

Myth 5: An ecosystem doesn’t change the inner workings of a company. It’s possible to think of an ecosystem purely as a structural innovation external to the company. But it would be strange if dependence on an ecosystem didn’t have major consequences for how a business runs. Many leading ecosystem players are in fact focused on redesigning their internal processes to be more responsive and adaptive to ecosystem dynamics. For example, one of Alibaba’s guiding principles is to “bring the market into the organization.” To achieve this, the company uses algorithms, fueled by live data drawn from its ecosystem, to automate as many operating decisions as possible. Alibaba calls this internal responsiveness the “self-tuning enterprise.”

Any company aspiring to manage complex relationships across an ecosystem, like Volkswagen or Alibaba, needs to build the organizational muscle to do so. Many companies still display the hallmarks of 19th-century organizational design, operating as integrated industrial behemoths that attempt to do or control it all. If building or joining an ecosystem makes sense, it requires redesigning internal processes to become much more flexible and responsive.

Myth 6: Ecosystems are constant over time. While designing an ecosystem based on where and how much value each participant adds feels like a natural starting point, this rests on the assumption that we can somehow know this information. But ecosystems are complex; participants have a high degree of autonomy, and roles within ecosystems are not constant. In biological ecosystems, “succession” occurs as one semi-stable configuration gets replaced by the next, like when a grassland ecosystem gets replaced by a forest, held together by a new semi-stable web of relationships. We can see this vividly in business in the case of PayPal. In 2015, PayPal focused on relationships with its 13 million merchants and saw banks as clear competitors. Then banks began pushing into new payments technology, and rival tech giant Amazon began offering payment and banking services. By 2018, the ecosystem dynamics had radically shifted: PayPal was working with multiple previous competitors: Citi, Chase, Barclays, FIS, and Mastercard. 13

The danger of this myth is that it leads us to adopt static, deductive approaches that are at odds with the dynamic, emergent character of ecosystems. When we assume this kind of approach, we risk being closed to change or not sensing the signs of emerging opportunities fast enough.

How Do You Use an Ecosystem?

Myth 7: Anyone can be the orchestrator. A common assumption around ecosystems is that any company — usually, one’s own company — can lead the efforts. Few companies, though, are really in a position to do this. Orchestration requires the possession of several exceptional assets — a powerful brand, an existing platform, the ability to scale, a compelling mutual vision, or cash reserves and thus the ability to explore and build patiently. Consider glassmaker Corning, a company that works hard to satisfy Apple’s product needs and win investment for joint R&D projects. Corning is successful in the effort but is clearly not the ecosystem leader in this scenario.
Yet, it’s easy to lose sight of realism when developing strategy — after all, who wouldn’t want their own company to be the central actor? Even industry-leading companies should think carefully about whether they are really in a position to orchestrate new cross-industry ecosystems. All CEOs should consider how their company will operate *in relation* to relevant ecosystems, but not every business can or should set out to orchestrate one.

**Myth 8: Ecosystems should be controlled or managed.** Even orchestrators have only limited control over ecosystems. When creating an ecosystem strategy, it’s best to err on the side of modesty, with a goal of influence, rather than complete control. Successful shaping comes from iteration and coevolution, by updating one’s model of the environment and goals continually, alongside others doing the same, rather than pretending that everyone can agree on a single objective and success criteria. This is Alibaba’s approach, as colorfully summarized by chief strategy officer Ming Zeng: “Never let an MBA near a marketplace that can run itself.” 14

The danger here is using classical plan-and-execute tactics when what we need is adaptation and indirect shaping. In so doing, we delude ourselves and end up unprepared to face the unexpected.

**Myth 9: You need only one ecosystem.** Most discussions in this space focus on developing a single ecosystem. 15 But companies such as Google, Apple, and Facebook are members of a number of ecosystems. Consider Philips Healthcare, which has an innovation ecosystem involving academic labs, robotics firms, and startups; a delivery ecosystem of suppliers of equipment and software to hospitals; and a third ecosystem, based around a tele-health app supported by multiple digital health care partners. Focusing on just one closes off the possibility of joining or building multiple ecosystems, and it prevents a company from considering how to make best use of the roles it may already be playing in different ecosystems.

**Myth 10: If you understand ecosystem strategy, you can do it.** Ecosystems require a *shaping strategy*, which refers to collaborating with others using indirect influence (including *being* influenced by others), being responsive to unpredictable changes, and evolving the ecosystem for mutual benefit. Enacting such a strategy can feel counterintuitive, as we are likely much more familiar and adept with the practices of a classical “plan and execute” strategy. To test this, the BCG Henderson Institute research team built a game that simulates different environments and strategies, including the shaping strategy appropriate to ecosystems. Across multiple companies, managers consistently found ecosystem strategy to be the most challenging: Only 18% succeeded versus an AI opponent, versus 71% in the classical strategy. Moreover, both the rate of learning and the proportion of managers who had shaping capabilities as their strongest skill were the lowest among five approaches to strategy.

The shift to ecosystems thinking challenges the very idea of “industry” that we inherited from the industrial revolution — a discrete set of broadly similar players competing to produce a common end product in a vertically integrated fashion. The coming decades will likely see the further spread of ecosystems, with companies coevolving in temporary clusters of semifluid relationships, spanning traditional industry boundaries. We should therefore be wary of inadvertently applying assumptions from more classical environments or overgeneralizing from a handful of well-known
precedents. Instead, we should adopt an ecosystems perspective and consider the specific strategic choices we face, based on our particular situation, aspirations, and capacities.
About the Authors

Jack Fuller is a consultant in the BCG Henderson Institute, BCG’s think tank for strategy and management. Michael G. Jacobides (@jacobides) is a professor of strategy and entrepreneurship at the London Business School, where he holds the Sir Donald Gordon Chair of Entrepreneurship & Innovation, and the co-author of the World Economic Forum’s recent Briefing Paper on digital platforms and ecosystems Martin Reeves (@martinkreeves) is global director of the BCG Henderson Institute and a senior partner in BCG’s New York office.

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