



# The Swift Rise and Surprising Importance of **Digital Ecosystems**

Produced in collaboration between  
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Traditional strategic analysis relies on a number of fundamental assumptions. Among these are that industry boundaries are relatively stable; that vertical integration can create efficiencies over market trading and that ownership of assets can create sustainable barriers to entry. In this article, we challenge these assumptions and show how the rise of digitally-instrumented ecosystems leads to a new way of thinking about strategy.

## Access to Assets, not ownership of assets

A longstanding assumption in strategy has been that firms exist to coordinate resources that can't be bought and sold on open markets. While this is still true, the advent of digital technologies has changed the nature of important resources to be controlled. In the past, physical assets and internal processes created barriers to entry. Today, data and technology capabilities are part of the new competitive 'secret sauce' while traditional resources can easily be bought and sold in market ecosystems. In the past, the fact that a firm owned its own computers and ran its systems in a unique way gave it an advantage. Wal-Mart's famous use of technologies such as cross-docking to give it an efficiency edge is a case in point. Today, computing capacity can be acquired on a subscription basis from Microsoft's Azure, Amazon's Web Services, Google's Cloud and numerous other platforms, and the advantage devolves to how the data flows supported by those platforms are used to create insights.

API's (application programming interfaces) and advanced data capabilities provide an opportunity to establish new and more tightly-integrated, seamless working relationships between organizations, meaning that each player can perform those

functions they do best in cooperation with their ecosystem partners.

Ecosystems are also thriving when based around the burgeoning "as a service" model for everything from workforce management technology such as that offered by Salesforce to furniture as a service offered by startups such as Mobley and Feather. Essentially, these models offer the use of an asset or service on a variable-cost, subscription basis. When the need changes, the subscription can end. During the subscription, the model allows customers to keep their costs variable and, typically, lower than traditional arrangements.

Ecosystems allow organizations to focus their activities on their specific areas of specialization, engaging best of breed service providers across multiple domains rather than creating less-than-optimal internal capabilities (which also can detract from an organization's core business and profitability). Ecosystems allow all participating organizations to scale exponentially faster compared to what they could do on their own, via access to the new markets and capabilities which made available by all of the participating organizations.

## Not for the Faint of Heart

Competing as part of an ecosystem can offer tremendous opportunities, but for established players deeply embedded in the old models, the transition to competing in ecosystems can be a challenge. For starters, digital and data-driven ecosystem relationships are complex, and require new architectures, governance models, commercial and operational contracts. Very few organizations have the technical and commercial scale to operationalize broad ecosystem partnerships, especially across multiple organizations.

It is easy to think that simply acquiring startups can infuse those capabilities into a more established firm, but while startups may bring specific advanced and valuable capabilities, they are also by definition higher risk in terms of their ongoing viability and overall operational stability. There may also be considerable tension integrating them with the ongoing parts of the business, as Wal-Mart is finding

with a string of digital-only acquisitions such as jet.com it has made in the last few years. It is now considering building its own brands within the digital infrastructure it has built up even as it learned from the startups.

There is also a lot of basic plumbing involved. Privacy protection and cybersecurity capabilities must be ensured across the ecosystem, normally across multiple security architectures and in line with multiple emerging international regulatory frameworks. Open or API Banking efforts as well as ecosystems which deal with health information are particularly focused on these challenges. Customer, data and revenue ownership must be transparent and managed in new ways, so that customers do not need to manage multiple relationships, while also ensuring that all members of an ecosystem are capturing sufficient value from their role in an ecosystem to incentivize their ongoing participation.

## A good partner can mitigate the risks

One way that organizations can simplify their participation in an ecosystem is to identify partners. Ideally, at least one of these are large enough and possess sufficient technical and commercial capabilities to help orchestrate the challenging technical aspects of assembling an ecosystem. Ideally, they would also avoid exposing themselves to the kind of “frenemies” competition plus cooperation that has proved so challenging for companies such as Apple and Samsung to navigate.

For instance, Japanese technology giant Fujitsu is anticipating the emergence of an ecosystem to put quantum computing to work. It has partnered with 1QBit, a Vancouver-based quantum computing software company, the University of Toronto (including a joint laboratory), Waseda University and other organizations to make emerging quantum-inspired technology (‘Digital Annealer’) available to others to use to solve big problems. It represents

the early stages of an emerging ecosystem in the quantum computing space, which promises to revolutionize the speed at which computers can work through vastly complex problems, with potential applications in fields as varied as logistics and drug discovery.

In addition, since 2015, Fujitsu has been running the “FUJITSU ACCELERATOR” program with the aim to provide new value by combining innovative startup technologies and products with the Fujitsu Group’s products and solution services. The program has already generated more than 70 collaboration projects between Fujitsu and startups.

Before participating with others in an ecosystem, it is important to be clear about your strategy. In many cases, ecosystem strategy can be based on “jobs to be done”—which is to say the delivery of superior customer outcomes through the digital

instrumentation of tasks and processes. Each task or process can be considered a “node” in the ecosystem. Detailed technical, process, data and commercial architectures are also required, which is why having a capable partner is crucial.

Ecosystems also require some mechanism for assuring that participants will live up to their agreements and avoid opportunistic behavior.

## How to get started

Once an organization has designed its ecosystem strategy, we recommend following a Discovery Driven approach. This is a way of planning for the future that acknowledges high levels of uncertainty and has been used for many years to manage high-uncertainty growth and innovation programs.

Leaders should look to evaluate a broad portfolio of potential ecosystem participants per node. Look for evidence of their willingness to partner, expert capabilities related to the node, advanced technical and process capabilities, commercial viability as an ongoing concern, security and privacy architectures, brand and reputation, and availability of a team to lead their role in the ecosystem. Use these insights to prioritize potential partners.

Next, do a little speed dating. If you can, run some small-scale experiments without making a long-term commitment. These might be joint go-to-market

This suggests prioritizing trust in the design of the ecosystem—with relationships across multiple parties, the sharing of data, the potential for multiple customer touchpoints, the explicit provision for ensuring trust across participating ecosystem organizations and customers is critical. This is an area where working with a leading player with advanced data, platform and operational capabilities also provides a significant advantage.

solutions, prototypes, or even swapping of data to see if mutually beneficial insights emerge.

As you learn, you will be able to refine the approach. Eventually, you should have enough confidence to select your ecosystem partners for operational integration and deployment. Build your ecosystem step by step, focusing first on establishing the working relationships which are closest to your core business.

Don't forget about the people aspects of ecosystem management. In particular, you need to define new leadership roles to develop and manage these new growth opportunities. Pay attention to updating incentives and communications within the organization, as ecosystems may pose a threat to existing teams; which could in turn look to block development.

## The Size of the Prize

Many of today's most successful business models leverage ecosystem relationships to create platforms. A platform business model is attractive because it provides the basic infrastructure upon which others may also create value. Google's YouTube, for instance, provides a platform upon which creators and their audiences can find one another, with advertising creating monetization opportunities.

As a business model, ecosystem participation is no longer an option for most organizations. Ecosystems represent one of the newest and most powerful of the new digitally-instrumented business models. You should strongly consider the ecosystem dimension as you consider your longer-term strategy.