ERICSSON

ORGANIZING FOR CHANGE

CREATING BUSINESS VALUE IN THE AGE OF CONNECTIVITY

PART 3/3
DIGITAL BUSINESS TRANSFORMATION

PREFACE

This report on creating business value in an age of connectivity is a provocative and inspirational story about how traditional companies can approach life in the Networked Society.

It is based on insights from research with purely digital companies, large and established enterprises, and experts and thinkers in the field of digital transformation. The method consists of extensive qualitative analysis. The report is produced by Ericsson in collaboration with global insight agency Augur.

Special thanks to Jan Unkuri, Josef Conning and Mikael Swedén at Augur, as well as to all the executives and experts whose interviews contributed to these reports.

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PURPOSE OF THIS REPORT

This report, the final in a series on Digital Business Transformation, is addressed primarily toward established enterprises. It begins by outlining some of the major technology-driven changes that are transforming markets and redefining the functions and experiences that organizations are able to deliver in an age of connectivity. Its purpose is to explore the nature of digital disruption and the radically new forms of value creation enabled by the combination of data-driven insights, connected users and products, and new technology platforms.

Though many industries remain in the early stages of digital transformation – focused mainly on cost efficiency and back-end IT systems – this report aims to emphasize the urgency to undertake more fundamental change. In practice, the strategies and opportunities described here will never be clear-cut. And most approaches have yet to be invented. This report is intended to provide some of the concrete examples and analytical tools needed for each enterprise to define its own path forward.

INTRODUCTION: A TIME OF TRANSITION

The advent of digital technologies has cast the world into an era of accelerating change. In recent years the most advanced organizations have left behind the industrial age of mass production and entered into an era we call the Networked Society. By leveraging new digital operating models and ICT-enabled value propositions, some have already risen among the ranks of the world's most successful companies – empowered not just by technology, but by new forms of distributed knowledge, flows of real-time data, massive user bases and a mode of permanent innovation. By designing their operations specifically for networks of connected products, services, users and collaborators, these organizations are overturning decades of business orthodoxy, one industry at a time.

> "In anything other than a protected industry, longevity is the capacity to change, not to stay with what you've got."[1]
>
> **Lou Gerstner**

Digital transformation disrupts business landscapes

In all too many sectors of our economy it's often assumed that business as we know it, with its highly evolved systems of organization, production and value delivery, remains relatively unchanged despite the evolution of technology. But with rapid technological change comes new ways of organizing people and ideas, new forms of knowledge, and fundamentally new markets and offerings. Digital transformation is a behavioral, cultural and economic shift to which all forms of business must adapt.

We believe that this time of transition impacts the idea of "the business" on its most fundamental levels. For most of the twentieth century, running a successful global business demanded high concentrations of capital, structured long-term investments in core technologies and production facilities as well as vast reserves of in-house knowledge. But digital networks bring down barriers to these and other historical advantages by expanding access to the same assets at a scale, speed and cost that were never before possible. Using digital technologies, competitors can unbundle, reconfigure and deliver these assets more cheaply and responsively to customers, making established players and proven business models more vulnerable than ever.

In our interviews with C-level executives in large and established enterprises, two things have become increasingly clear. The first is that digital business transformation is now on the agenda of nearly every management board. The second is that most companies are uncertain about how to effectively execute on this clearly pressing need. Transforming a large and established enterprise, after all, is far riskier than starting a new business with everything to gain and little to lose. But in this time of accelerating change, inaction is by far the greatest threat of all.

[1] "Lou Gerstner on Corporate Reinvention and Values." McKinsey Insights, September 2014. http://www.mckinsey.com/insights/leading_in_the_21st_century/lou_gerstner_on_corporate_reinvention_and_values

Who is most vulnerable to disruption?
For incumbents of all kinds, uncertainty is the new norm. But despite the fact that many are aware of the need for digital transformation, the major risk is responding with too little change, too late. In fact, three quarters of incumbents respond too late to digital disruptions, according to a recent Capgemini report.[2]

What, then, are the early warning signs of an industry on the verge of disruption? And how can executives assess their level of risk? While the lines may never be clear-cut, former Harvard Business School professor Shoshana Zuboff has outlined some of the indicators of an industry boundary that is vulnerable to disruption.[3] To paraphrase Zuboff's examples:

- Your products and services are widely desired, but largely unaffordable – Digitally enabled competitors will find a way to reduce transaction costs and deliver a more affordable, accessible alternative. Unaffordable products, once connected, can instead be offered as services with a range of alternative experiences and pricing models.

- Customer trust and satisfaction are in steep decline – This is true for many of the world's largest industries, including financial services, healthcare, education and energy utilities – all of which are ripe for fundamental transformation.

- A highly concentrated business model with high fixed costs – Collaborators, business support systems and even production facilities are now increasingly available on-demand, making it possible to distribute and delegate many current fixed costs into scalable, flexible networks. The cost structures of many digital competitors allow them to be far more agile and risk-prone, which puts extreme pressure on incumbents to adopt new business models to compete.

- A high degree of hidden assets outside organizational boundaries – Now more than ever, the most interesting opportunities lie at the edges of the organization or in adjacent industries, where under-recognized and underutilized capabilities may be abundant.

- A lack of assets needed to meet changing customer needs – Many of these are likely to be digital capabilities, such as computing power, data analytics and technical talent, as well as providing access through the digital devices, services and channels increasingly preferred by new generations of users.

- A lack of awareness and/or capabilities necessary to learn customers' true needs – Market experimentation is the lifeblood of a digitally enabled business. While digital startups constantly iterate and evolve, many incumbents lack the capacity to launch quickly and respond to market signals, instead falling victim to their own internal planning cycles.

These vulnerabilities clearly are not unique. Nor can they be resolved through the same processes of innovation that created them. What is needed instead is a fundamentally new set of business practices that better support the complex demands of 21st century individuals, end users and customers. This report is not an answer to this need but a small step towards accelerating the necessary process of transformation. As hierarchies of command-and-control gradually give way to more adaptive, networked organizing principles, the good news is that the options for digital transformation are now more open and accessible than ever before. It's up to every organization to borrow from the playbooks of others in order to write their own.

[2] "When Digital Disruption Strikes: How Can Incumbents Respond?" Capgemini Consulting, Feb. 20, 2015. http://www.slideshare.net/capgemini/digital-disruption-44929928
[3] "Creating Value in the Age of Distributed Capitalism." McKinsey Insights, Sept. 2010. http://www.mckinsey.com/insights/strategy/creating_value_in_the_age_of_distributed_capitalism

1. DIGITIZATION AND PERMANENT INNOVATION

"If you only stare at the technology, you will be outpaced."

Hanna von Schantz, Stockholm Business School

It's easy to make digital business transformation a question of technology, whether that means implementing new technologies or converting existing products, services and business processes into digital versions. However, this is not the case. More than just providing new tools, digital technologies have set in motion powerful forces that transform the fundamental operating models of a company. The most responsive organizations will be those that leverage these forces to their advantage – using distributed assets and information to eliminate transaction costs and dramatically increase their tolerance for risk.[4]

"A marketplace is full of inefficiencies that you can tap into. The key is to identify things that used to be thought of as closed, single-purpose devices and discover other ways to leverage them."

Robin Chase, Co-founder of Zipcar, founder and CEO of Buzzcar

Distributed information, assets and communications

When information went online, a wealth of potential was unlocked. First it was documents, audio and video. Now the same is happening for machines, processes, social interactions and more. By releasing digital information from previously closed systems – whether a book or an industrial turbine – the world is undergoing a process of decentralization that makes it possible to decode and recode, distribute and reconfigure, the web of relationships that constitute a business. The decentralization of data is rapidly changing the ways organizations create and redistribute value in a number of new ways:[5]

- Data as a raw material: Data and information are the new raw materials for value generation. Just as manufacturing processes add value to physical raw materials, advances in computational capacity and analytics play an increasing role in adding value by refining the exploding volumes of metadata, sensor data, interaction patterns and much more.
- Data as a product: Information, computational capacity and software now account for a growing share of the value of a product or service. Physical products and processes as diverse as cars and accounting systems are becoming as valuable for the information and insights they contain as they are in terms of their traditional functional value.

[4] For more on the operating models of digital enterprises, see parts 1 and 2 of this report series, and the final report in Ericsson's Industry Transformation series: The Disruption of Industry Logics; Digital Disruptors; and The Economics of the Networked Society.

[5] Alberts, Garstka and Stein. Network Centric Warfare: Developing and Leveraging Information Superiority. 1999. C4ISR Cooperative Research Program. http://www.

- Data as fuel: Information products, whether mined from an organization's own data or from shared or open data, are being used to fuel entirely new commercial capabilities. Individuals and organizations of all sizes can leverage the insights from real-time data analytics for improved processes, decision-making and experimentation with little capital investment.

In the most data-intensive enterprises, such as streaming media services or high-speed algorithmic trading, data is already the primary raw material, product and fuel for innovation and value generation. But this is increasingly becoming true across all industries as physical products become not value propositions in themselves, but vehicles for delivering new digital services and interactions. The product, once a static object for incremental improvement, is now dynamic and responsive due the digital interactions it empowers. Used responsibly and with the appropriate levels of trust and security, these streams of dynamic, real-time data represent a new resource for extracting insights that were previously impossible to achieve.

Zero marginal cost transactions

Digital technologies, by making these insights instantly shareable, enable a world of zero marginal cost transactions. This makes it possible to access not just distributed information, but distributed assets, social relationships and management systems as well. For individuals and entrepreneurs, it has never been easier to gain access to talent, customers, productive capabilities and support services without the support of an established corporate entity.

The elimination of transaction costs has radical consequences for every business. It means that the twentieth century business – designed primarily to concentrate and minimize the costs of its assets, transactions and communications – is fundamentally organized to solve problems that no longer exist. Startup competitors, unencumbered by the marginal or fixed costs of a large global organization, can not only carry out the same functions more cheaply and at greater speed – they can do so with vastly greater flexibility and a higher tolerance for risk.

> "If you had to know one thing that will explain the next 20 years, that's the key idea: We are moving toward a period of decentralization."[6]
>
> **Chris Dixon, partner at the venture-capital firm Andreessen Horowitz**

The nature of risk has changed

The modern corporation is ideal for managing the risks of the age in which it was invented. It is a massive machine for aggregating and allocating resources among carefully budgeted projects, and distributing the profits among stakeholders. The result has been the kind of incremental innovation that rewards bureaucracy, proprietary systems and safe, predictable returns.[7] This model was uniquely suited to a pre-digital era, where vast groups of individuals required highly concentrated and cost-efficient organization, management and communication in order to focus resources and minimize long-term risks.

But digital technologies have fundamentally changed the nature of risk. Thanks to widely accessible computing power and communications platforms, networks of individuals can now perform many of the functions of a corporation. These networks are often able to shape markets more quickly, sense and respond to user behaviors more immediately, and experiment more radically. They are built to navigate a new risk landscape in which every new user expectation must be managed and improved, and where the long-term risks are increasingly unpredictable.

By replacing fixed costs and fixed offerings with dynamic digital services, these types of companies are able to focus all their energy, resources and talents solely on the needs of users. As a consequence, their bias towards risk, experimentation and innovation increases exponentially.

[6] "Welcome to the Failure Age!" New York Times Magazine, Nov. 12, 2014. http://www.nytimes.com/2014/11/16/magazine/welcome-to-the-failure-age.html?_r=0
[7] Ibid.

2. THE END OF SUSTAINABLE COMPETITIVE ADVANTAGE?

In recent decades, the large-scale application of ICT has focused largely on improving the efficiency of existing processes to protect current market advantages. But in a digital world, it is no longer sufficient to simply streamline existing business operations. The success of any digital transformation will instead be defined by the speed at which an organization can adapt and respond to rapid market changes with business models of its own invention.

Corporate longevity is in decline

Wherever your company, division or product happens to fall within the spectrum of incremental versus disruptive innovation, the fact remains that the average company's longevity is in steep decline. In just the last 50 years, the average lifespan among S&P 500 companies has dropped from more than 60 years to just 18 years.[8] Both globalization and technological change will continue to play a role in this rising failure rate, forcing every executive to reevaluate his or her survival strategies.

Existing assets remain valuable

Established organizations, of course, have a number of advantages that are often overlooked in times of uncertainty and change. Strong customer and supplier bases, long-term shareholders, deep reservoirs of experience and talent, and established channels of production and distribution, are just a few – not to mention the provision of relatively secure jobs and career paths. All of these remain valuable assets that are difficult for startups to replicate, no matter how agile and innovative they may be.

But they may be your greatest weaknesses

Organized in the wrong ways, however, each of these strengths can quickly become a weakness. As the market becomes more complex, more fragmented and faster moving due to new technologies, the challenge of remaining useful and relevant to customers in the face of bureaucratic structures, entrenched interests and long-term planning processes becomes harder by the day. In short, the very capabilities that enabled organizations to achieve sustainable market advantages in the past are now causing their downfall.

> "The assumption of sustainable advantage creates a bias toward stability that can be deadly. My research suggests that rather than stability being the normal state of things and change being the abnormal thing, it is actually the other way around."[9]
>
> **Rita Gunther McGrath, Columbia Business School**

[8] "The Art of Corporate Endurance." Harvard Business Review, April 2, 2014. https://hbr.org/2014/04/the-art-of-corporate-endurance

[9] McGrath, Rita Gunther. The End of Competitive Advantage. Harvard Business School Publishing. 2013.

New strategic imperatives

To date, the large-scale application of ICT in most industries has focused mainly on streamlining and cost cutting. But in a fast-changing marketplace, these efficiency measures no longer suffice. Rather than pursuing a sustainable advantage in a clearly defined industry, many companies are instead shifting their strategies toward a portfolio of transient advantages within the shifting spaces between consumers and new technologies. At the most senior levels of the organization, this demands an extreme reorientation towards the needs of individual customers. It means reorganizing teams to deliver and learn faster, fail and improve frequently, and share concrete data within the organization regarding what's working and what's not.

Fleeting opportunities require faster iteration

In the digital economy, competitors are already solving problems you may not even know exist. Their R&D is taking place in the hands of users. And their customers are waking up every morning to discover that the products they've purchased suddenly have new capabilities. All of these facts make digital strategy fundamentally different from traditional strategy as we know it. To maintain current advantages, companies will have to continue to improve the value of their current offerings. But they will have to add an array of new digital capabilities in order to survive.[10]

> "A few decades ago the defining strategic questions asked within large, complex organizations centered on efficiency, defending your market position, reducing or managing costs, and reliable execution. Today's key strategic questions focus on how an organization evolves and adapts quickly to the world around it."[11]
>
> **Mike Arauz, Undercurrent**

[10] Regårdh, Patrik. The New Logic of Value Creation, https://digitaliseringskommissionen.se/wp-content/uploads/2015/06/SOU-2015_65-WEBB-antologi.pdf

[11] "The Most Interesting Questions in Business." Medium, March 30, 2015. https://medium.com/undercurrents-greatest-hits/the-most-interesting-questions-in-business-3af00f6ed2cc

3. INNOVATION WITH A PURPOSE

ICT can create immense new possibilities for rapid, self-organizing networks, both within and far beyond traditional organizational boundaries. But this demands a new type of leadership in which a clear purpose, not functional priorities, is the guiding force for innovation.

Under the leadership of Steve Jobs, Apple's existence as a company could be defined in just two words: to "delight customers." Without this mission, the single-minded focus that resulted in revolutions like the Macintosh, the iPod, and of course the iPhone, may never have been possible. Compare this with the stated purposes of other well-known digital innovators, all of which are not only industry leaders, but are creating completely new categories along the way:

- Tesla: "To accelerate the advent of sustainable transport by bringing compelling mass market electric cars to market as soon as possible."
- Google: "To organize the world's information and make it universally accessible and useful."
- Facebook: "To give people the power to share and make the world more open and connected."
- Uber: "To provide "transportation as reliable as running water, everywhere, for everyone."

These purposes diverge radically from the traditional corporate mission statement. In every case, the primary focus is on providing users with new levels of utility, experience or empowerment. All are inspiring and extremely ambitious. And nowhere do phrases like "market leadership" or "shareholder value" even enter the picture.

> "If you've got a really important problem to solve you can have a network of people working for you. If the problem to solve is increasing shareholder value it won't work, because nobody really cares about your shareholder value."
>
> **Ben Hammersley, Futurist**

Returning to customer value

In the digital economy, the most successful leaders have made a clear shift marked by a devotion to the needs of users and customers. Long-term shareholder value, which has long been the primary purpose of traditional corporations, is demoted to secondary status and only follows as a natural result of the customer value delivered. Due to the abundant nature of ICT, priority has shifted from the back-end organization to the front-end consumer demands. This unwavering user focus is both the starting point and driving force for any successful digital transformation.

"A company like GM is a finance-driven company who always has to live up to financial expectations. Here we look at it the other way around — the product is successful when it's great, and the company becomes great because of that."[12]

Franz von Holzhausen, Chief Designer, Tesla

Users in the driver's seat

As a result of ubiquitous connectivity, the context for today's business is centered on an extreme proximity between individuals and new technologies. Products and services are not simply consumed at a distance, but are intimately adopted and engaged with through multiple new interfaces, collaborative networks and peer-to-peer interactions. It is in these spaces, these new digital interactions, that personal meaning and business value are being created in powerful and unpredictable new ways. Some of these are within a business' control. Many are not, but can be encouraged by design and responded to with new offerings.

There are three fundamental aspects of digital transformation that put users in control:

- Digital technologies make a multitude of market alternatives more available and more accessible in more forms for more people. The age of customer relationship management is giving way to one driven by vendor relationship management, where rising customer expectations steer the value proposition.
- Any experience now takes place within a network of connected people. The best products and services encourage these people to create value for one another, thereby exponentially increasing the value of the business' network.
- As more needs are met with on-demand, responsive, intuitive and engaging solutions, users expect products and services to rapidly evolve to meet their changing needs. If the smartphone was the original user utility device, people now expect similar personalized benefits from everything they use.

User value + purpose = purposeful innovation

In many ways, managing an enterprise whose value is in the hands of digitally empowered users is a fundamentally different proposition. Rather than directing work to outmaneuver existing competitors, business leaders need to instill a purpose around which new operational networks, collaborators and customers can converge to co-create new forms of value. It will be a complex world of new technologies, processes and data-driven insights. And successful revenue models will rarely be clear from the start. But in the era of digital innovation, the value created depends fundamentally on a clear purpose oriented toward the functionality, excitement, personalization and interaction of the services experienced by users.

"So what really needs to change is not how we describe our organizations, but the role of leaders within them. Whereas before, it was the role of managers to direct work, in a connected age we need to instill passion and purpose around a shared mission. The networking, if encouraged and not inhibited, will take care of itself."[13]

Greg Satell, Harvard Business Review

[12] "How Tesla will Change the World." WaitButWhy. http://waitbutwhy.com/2015/06/how-tesla-will-change-your-life.html

[13] "What Makes an Organization 'Networked'?" Harvard Business Review, June 8, 2015. https://hbr.org/2015/06/what-makes-an-organization-networked?utm_source=Socialflow&utm_medium=Tweet&utm_campaign=Socialflow

4. PLATFORMS FOR NEW RESOURCES

In the traditional business model it's the company that creates all the value. Create a better product with better distribution at a better value, the thinking goes, and consider your competitive edge achieved. But in the age of connectivity, where value is co-created by businesses, collaborators and consumers, the platform is increasingly critical to success.

Whether it's the e-commerce of Amazon, the app stores of Apple and Android, or the handcrafted products of Etsy, digital platforms exist not to simply deliver value, but to enable new forms of value creation. Rather than pushing products in a single direction, they pull in multiple stakeholders with easy connectivity and useful tools. Instead of driving sales through advertised value, they attract users and developers through the actual utility provided. The result is a new type of marketplace where buyers, sellers and partners converge in the service of a two- or multi-sided market.

> "I feel sorry for those who have not yet started to think in terms of platforms, because it's much more work than you think."
>
> **Daniel Wentz, Senior Business Developer, Schibsted**

The new global marketplace

Platforms are by no means the sole domain of technology companies. The business franchise and the shopping mall – where a business is licensed by one company but managed and operated independently – are both types of platforms whose success depends on mutual value creation. Yet these are local examples with one-sided markets. Today, a global cloud infrastructure combined with widespread mobile connectivity makes the platform business instantly accessible to a nearly limitless variety of stakeholders around the world. Simply by publishing a standard of connectivity and providing the tools and rules that govern it, companies like Apple, Google and Amazon have created global platforms with a gravitational pull all their own.

Connecting buyers, sellers and developers

The accessibility of platforms makes it possible for nearly anyone to create a business, share content or exchange services in real time. In varying degrees, the platform is data-driven business that provides trust, manages transactions and pricing, and coordinates supply and demand among a range of sellers and buyers. It can be a thin layer of connectivity, or a sophisticated provider of data and analytics that facilitates a two- or multi-sided market:

- Two-sided markets
  Two-sided markets are platforms with two distinct user groups that provide each other with network benefits. Amazon's e-commerce platform, for example, hosts both customers and commercial suppliers, giving both sides the benefits of the platform's network effects. More supply leads to more customers, which leads to even more supply. Airbnb is another example, where the platform exists to consummate a match between homeowners and guests, both of whom benefit from the aggregate supply of the platform.

- Multi-sided markets
  Multi-sided markets provide services or technologies that are developed by one or several firms and that serve as foundations upon which other firms can build complementary products, services or technologies. Beyond aggregate search and transaction functions, multi-sided platforms make it possible to accelerate innovation through collaboration with parties outside the platform owner's organization. The market surrounding AirBnb is a prime example of this, where a primary two-sided market between hosts and guests has begun to evolve into a multi-sided market for cleaning services, hospitality management and other diverse operations.

Flexible, responsive platforms
Naturally, few platforms will achieve the size and scale of an Amazon or Apple App Store. More likely, they begin with a single foundational product that, over time, adds capabilities through new forms of connectivity and open interfaces. By providing an open API or other programming interface to third parties, nearly any widely used product can become a connected platform for innovation and value creation.

Regardless of its scale or market penetration, the platform provides two key opportunities for established businesses by offering:

- Flexibility: Platforms, by nature of their connectivity and data-driven insights, allow companies to both explore and create new arenas that cut across industries and market categories. From iTunes to App Store to Health Kit, there are few limits to the number of ecosystems into which Apple's original platforms can expand.

- Responsiveness: The platform business generates constant insights and advantages from real-time user data and the innovations of its partners. Rather than exploiting a single product or service as in the past, the platform owner can observe and adapt to the continuous process of discovery carried out by all its users and partners – and respond accordingly to new opportunities.

Shared engines of innovation
The platform, as a shared engine of innovation, makes it all the more possible for businesses to move beyond the product-focused organization dedicated to managing processes of production, distribution and communication. Whatever its revenue model, the platform is devoted primarily to generating new insights, innovations and opportunities. In this way, the supplier of products moves into the heart of the new value-creating network to become an enabler of new business innovation.

New service enablers
By applying a platform strategy, virtually any product can become an enabler of new digital services. But where products are typically hardware- or software-oriented, platforms focus primarily on the broader functionality or value provided. With the right technology platforms, the car manufacturer becomes an enabler of mobility services. The university becomes a facilitator of lifelong learning. And the local clinic becomes a wellness management provider. The platform logic allows each of these businesses to enhance their utility and increase their value through a range of new technologies and interfaces. It allows companies to invite other stakeholders and customers into the process of value creation, leveraging existing user relationships to turn what was previously a competitive market of zero-sum gains into a force for collaborative innovation.

When Tesla opened up its patents surrounding electric vehicle charging stations, this is just the sort of marketplace it imagined – one that requires a collective effort to reach critical thresholds in innovation. Closed, proprietary systems are still necessary (Tesla has many of these), but are no longer the default design. To create truly breakthrough platforms, new forms of radical openness and transparency will need to be tested. It's a world fueled by connectivity and collaboration – and competition is no longer a zero-sum game.

5. NETWORKED KNOWLEDGE AND DECISION-MAKING

Platforms and networks don't just benefit their inventors. They also provide critical new capabilities for other companies and entrepreneurs. With the help of new technology platforms and the networks they provide access to, established enterprises now have an unprecedented opportunity to build on the innovations of others in order to expand and accelerate their knowledge-sharing and decision-making capabilities.

Never before have businesses had so many third-party platforms to leverage and build onto. Between Wordpress, Amazon, Google and Salesforce alone, a company can build its website, host its cloud computing, sell products, advertise, collaborate, teleconference, manage global sales operations and more – all at a fraction of the cost of similar in-house IT systems of just a decade ago. All of these can be accessed and scaled on-demand, or customized and built upon extensively.

From managerial control to empowered networks

Every day, capabilities like these are becoming more available and more advanced. Thanks to flexible resources from Skype to Github to Slack, organizations have never been so liberated from the previous technological and geographical constraints that have motivated current corporate organizational models. Rather than an organization biased toward management and hierarchy, new networks can now be built with a bias toward open knowledge-sharing, rapid action and intuitive decision-making.

New organizing principles

Powered by new digital capabilities, many of today's most successful businesses have made a shift toward rapid communication and flatter hierarchies in which the best ideas win. This means drawing on knowledge networks both within and far beyond traditional organizational boundaries. But above all, for larger companies it means entrusting and empowering smaller teams with the responsibility for designing, creating and refining their work from start to finish.

For those familiar with agile software development, organizing work this way comes naturally. Teams are self-organizing and cross-functional. Planning is adaptive and flexible. And delivery is iterative and continuously improved. Rather than relying on large-scale project planning, products and services live or die by their ability to experiment incrementally, adapt to user feedback and integrate knowledge back into the greater organization.

> "You need to be ready to move capital much faster. You need to look differently at acquisitions. You may have to acquire innovation and product development. You probably have to work in completely different network constellations than you're used to. The boundaries of your business become less distinct and eventually erode. Your operations and those of others become a blurred zone. Organizations need to be able to manage these new forms of collaborations."
>
> **Johan Ranstam, Boust**

The variations on this method, of course, are nearly infinite, and the challenges of implementing it within large organizations are widely acknowledged. But even organizations as large and complex as Tesla and SpaceX (both founded by former software developer Elon Musk) are proving that these principles can apply to a wide range of industries beyond software engineering.

The music streaming service Spotify and the gaming company Valve are two multibillion-dollar enterprises that have demonstrated the promise of radically new organizing principles:

Spotify: a 21st century matrix organization

At Spotify, the entire global company of more than 1,500 employees is organized into highly autonomous units. Their fundamental unit – the "squad" – is designed to function as a semi-independent startup within the organization. Consisting of five or six self-organized members, squads take responsibility for a single long-term mission such as payment solutions or the Spotify radio experience. Each is focused on a single feature, from start to finish, but devotes 10% of its work time to so-called "hack days", during which they try and share new ideas – sometimes leading to product innovations. Squad members are empowered to devote themselves to an area of interest or change squads when necessary, resulting in a broad, multi-disciplinary body of knowledge and experience surrounding each product feature. Product owners (POs) are responsible for work prioritization and accountability within each squad, but otherwise steer clear of micromanaging how the work gets done.

The larger company organization, of course, is as complex as in any large enterprise – with additional organizational layers, teams, interdependencies and quarterly surveys. But everything is built on the basic unit of the squad, which is engineered specifically for rapid delivery and responsiveness within digital networks. It is a culture founded on agility, empowerment and experimentation.

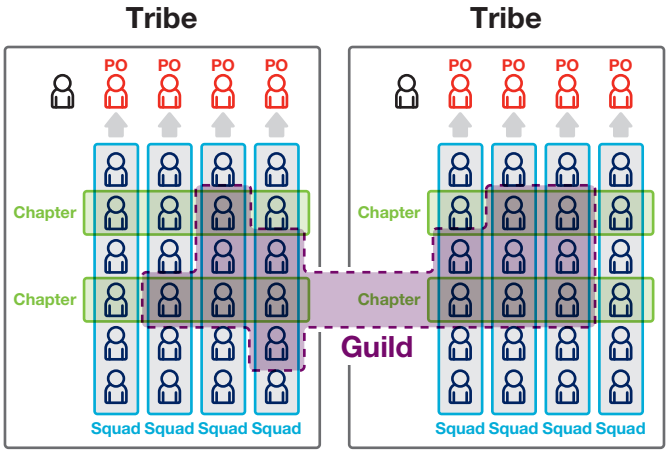
Tribes: The largest groups, divided according to related features or engineering functions.

Squads: Each tribe is made up of squads, which are responsible for individual features or components within their tribe. No squad has a single leader, but instead functions as a "full-stack" team responsible for decisions and execution – from backend to user interface.

Chapters: Chapters are the cross-functional units, consisting of a group of members of various squads, that often fulfill a general reporting function. In contrast to a traditional matrix organization, these chapters remain fluid and can dissolve whenever their role is no longer needed.

Guilds: Guilds are entirely voluntary units, or virtual organizations, that facilitate communication and collaboration across tribes. Each focuses on a specific area of interest or expertise, such as Leadership, Web Development or Test Automation, and is a way of improving communication among developers.

Figure 1: The Spotify organization – a corporation comprised of mini-startups[14]



[14] Source: http://blog.crisp.se/2012/11/14/henrikkniberg/scaling-agile-at-spotify

Valve: the leaderless organization

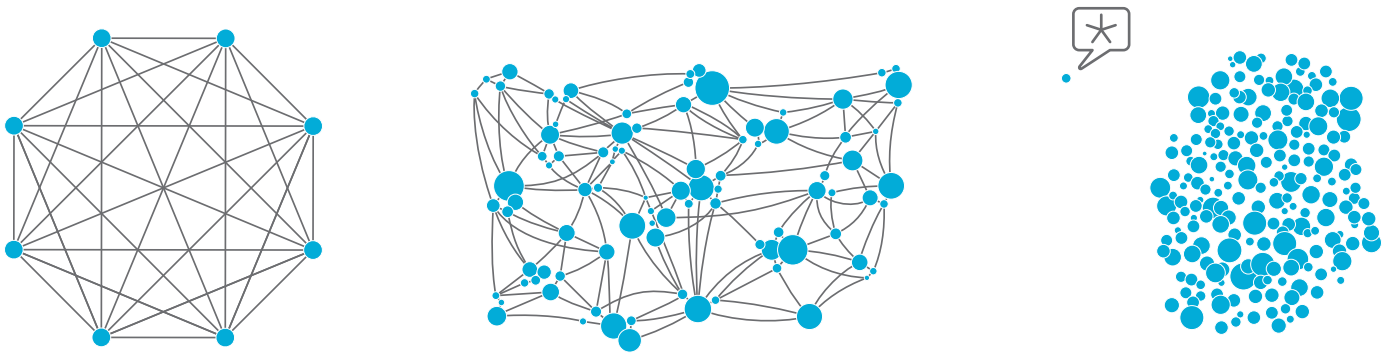
Valve, a highly successful Seattle-based gaming company, represents an extreme form of flat, leaderless organization. The company operates with no manager, and no one to report to. Workers decide for themselves which project to work on at a given time, and configure their wheeled desks accordingly. To keep the talent pool dense, each worker is responsible for hiring equally talented new employees. Compensation is not defined by title but is awarded according to an open, "stack ranking" of the value contributed by each worker – broken down by the difficulty/uniqueness of problems solved, general productivity, group contribution and product contribution.

On its surface, this may seem more like chaos than a form of organization. But a company like Valve operates in an extremely fast-moving, user-centric industry where a company's future hangs on every product, feature and experience it creates. The leaderless culture of self-organization is built to reflect and respond to its market. And for Valve, with more than 400 employees and an estimated value in excess of $4 billion, it works.

These examples, though selective and quite radical for most organizations, are likely to shock most corporate managers – as they should. Not because they're wildly unrealistic, but because they've already proven highly successful in delivering world-class digital products and services at a far faster pace than even their equally "digital" competitors. Spotify now has more than 20 million paying subscribers. The market cap of Valve, for its part, surpassed that of industry giant Electronic Arts as early as in 2012.

So-called flat organizations may be uniquely suited to software development today. But as every industry evolves from delivering physical products toward co-creating digital relationships, interactions and services, these organizational principles will become increasingly relevant for companies of all kinds. Starting with small teams, established businesses can begin experimenting with similar operating models to find out what suits their organization and market. A failure to do so will only increase the friction between rigid internal hierarchies and the digitally networked market. For most businesses, such a tension is both self-evident and increasingly unsustainable.

Figure 2: Valve's self-organizing, "leaderless" organization[15]



[15] SOURCE: http://www.valvesoftware.com/company/Valve_Handbook_LowRes.pdf

6. ORGANIZATIONAL LEARNING AND HIGH-SPEED EXPERIMENTATION

Today's complex, global organizations are rife with barriers to learning. In a world that is connected, mobile and global, they are segregated by function, restricted by geography and isolated from the day-to-day needs of customers. Rather than managing risk, corporate leaders need to build a culture of self-learning and high-speed experimentation where innovation flourishes.

"Coordination and decision making are two things that tend to slow down in large organizations. Technology can speed those up."

George Westerman, MIT

Establishing new forms of organizational learning is the central challenge in any digital transformation. Instead of optimizing long, open-ended learning curves, leading executives are finding that the answers lie in small, self-contained learning cycles. Instead of managing knowledge, they enable learning processes and harvest greater insights wherever they emerge.

From long learning curves to tight learning cycles

The examples of Spotify and Valve show what's possible in a company culture built specifically to encourage rapid learning cycles. Autonomous teams, given the resources and authority to develop and deliver according to their goals, are capable of sensing and responding to the market at a pace that today's large business will have to learn to match. Wherever an opportunity arises, they pursue it at sprinter's pace to quickly prove an experiment or fail. Only after proving the idea's value are they given a longer runway, a larger budget, or a greater scope.

"When conditions get tough, it's a good time to push power down to the people on the ground who really know what's going down."[16]

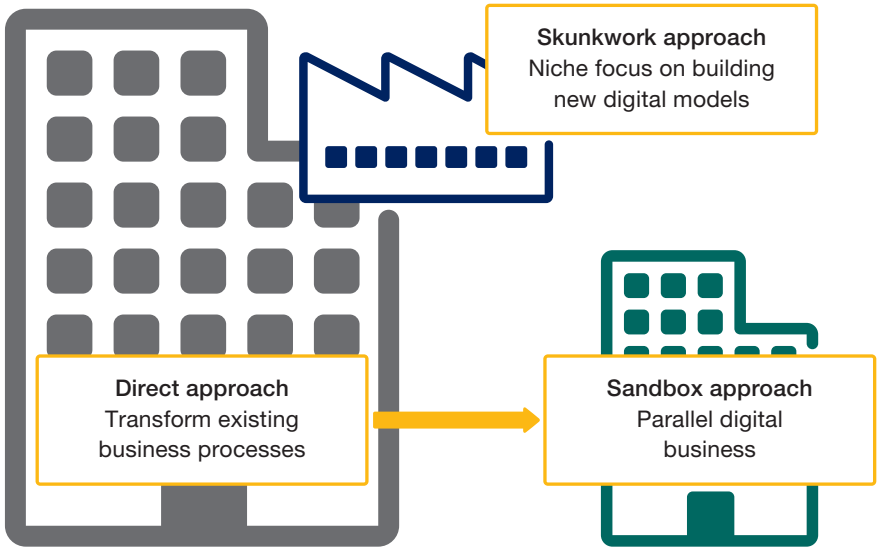
Nicholas Bloom, Professor,
Stanford Graduate School of Business

[16] "Nicholas Bloom: Decentralized Firms are More Recession-Proof". Insights, by Stanford Business School, October 16, 2014. http://www.gsb.stanford.edu/insights/nicholas-bloom-decentralized-firms-are-more-recession-proof

Sparking organizational change

Not all large organizations are internally equipped to handle this transformation. But by starting with small, focused teams, there are several immediate ways to begin. Typically, these would fall into one of three categories, which we call the direct approach, the skunkworks approach and the sandbox approach:

Figure 3: Digital transformation through direct, sandbox and skunkwork approaches



1. The direct approach: The direct approach aims to transform an existing organization as it stands right now, typically through various initiatives within operations, supply chains or partnerships. Most often, it is necessitated by a sharp divergence in customer expectations – as with the rise of digital music downloads, which ruptured the traditional music industry due to new consumer demands. Potential pitfalls with the direct approach are almost too numerous to mention, since traditional projects are risk-averse, budget-focused and guided toward pre-determined objectives. To discover new digitally enabled business models, where risks are everywhere and outcomes unknown, a successful direct approach should involve a small team of C-level executives with a strategic commitment to digital transformation. No business unit or discipline should be excluded, since learning barriers will need to be eliminated throughout the entire organization.

> "It started with the blessing of the new CEO. After that we internalized digital expertise because we realized that this question [digital transformation] is strategically important. And we appointed a digital lead, above department level."
>
> **Kristoffer Labuc, Director Strategy, Insights & IT, McDonalds Sweden**

2. The skunkworks approach: The skunkworks approach is based on aircraft manufacturer Lockheed Martin's advanced development program, Skunk Works. In this case, it starts by creating an autonomous "digital unit" free from corporate legacy and standardized business processes. Typically this means empowering a small, multidisciplinary team with a clear mandate for discovery and little to no outside intervention. The team should ideally function as a start-up with no learning barriers or aversions to risk. Its sole responsibilities should be to test, prototype, gather user feedback and deliver a full-fledged feature, product or service in its entirety. In short, it is a team composed of makers, not managers, whose ideas are judged according to the viability of each short development sprint and the broader business insights it delivers. By demonstrating the extreme capabilities of self-organized innovation, the direct approach can have an immediate positive impact on corporate culture. Managed improperly, it can also unleash an internal clash of cultures.

3. The sandbox approach: The sandbox approach stems from Konstantin Peric's "castle and sandbox" analogy for innovation, where the old company is the castle and the innovative initiative is the sandbox. It is a parallel business aimed at repositioning the existing enterprise as a full-fledged startup geared toward the digital world – a sort of incubator aimed at delivering new business models and insights that can be leveraged by the traditional organization. Often, this approach requires a great deal of new or outside expertise, as Philip Petersen at Prehype, a company that facilitates sandbox initiatives in what he calls venture hosting, explains:

"In reality, people in a company are hired just to maintain a current business. The skill set in maintaining a business is very different from starting a business. And most of these companies hire people who are good at maintaining businesses."

As with the skunkworks approach, the risk of the sandbox approach is the difficulty of integrating new models into the existing organization. But companies as diverse as Xerox, Nike and The New York Times are proving that this dual approach can be highly effective.

Leveraging new platforms for innovation

Other ways to accelerate the learning process lie far outside the business organization, in adjacent industries or other networks of external innovation. Industry partnerships, open innovation initiatives or incubators are several common methods. But increasingly, new platforms are emerging that allow companies to interface with complete product innovation capabilities based entirely on external resources.

A recent example: In 2013, GE teamed up with Quirky, a crowdsourced product invention company, to create a new air conditioner. Using a community of innovators outside GE, including both amateurs and professionals, they were able to go from idea to market in just 90 days – substantially faster than the time GE's traditional appliance business would typically take to launch a similar product. The resulting product, a digitally enabled air conditioner, quickly became the top-selling air conditioner on Amazon.

Allowing new digital capabilities to emerge

Ultimately, how a company chooses to introduces agile learning processes into its organization will depend on a complex mix of current capabilities, resources and priorities. But as the examples above show, there are multiple ways to begin removing barriers to learning within your organization. Anyone in a position of authority can kickstart the process of transformation by providing greater autonomy to small teams further down the hierarchy and out at the edges of the organization where user-driven insights emerge. Only then can the business capabilities necessary to succeed in the digital age self-organize and thrive.

> "To transform digitally is not to transform specific units, projects or business models. To transform digitally is to digitally transform the entire context of your business."
>
> **Sakari Pitkänen, Infopaq**

7. NEW CAPABILITIES FOR A DIGITAL AGE

An unpredictable future belongs to the most responsive organizations. Traditional companies now have an opportunity to evolve from strategies of command and control to self-learning teams that sense and respond, and beyond into a state of greater market awareness. To do so, they will need to develop a range of fundamentally new digital capabilities.

According to the Ronald Coase classic, Theory of the Firm (1937) people begin to organize their production in firms when the transaction costs of coordinating production through the market exchange, given imperfect information, are greater than within the firm. The traditional company is in essence an administrative entity. Although perfectly suited to minimizing the risks and transaction costs of a pre-digital market, in the digital world it has now become the source of some of the market's greatest inefficiencies.

The logics of the corporate era centered on managing capital, means of production, logistics, distribution and human resources. Today, business leaders and their teams need to manage an entirely new set of resources for value creation based on individual users, connected products, aggregated data and new platform-enabled insights:

1. Active, participating users

Users – whether they be the customers, patients, students or citizens that interact with your business – are no longer the endpoints for product delivery. Increasingly, their contributions and engagement are vital inputs for co-creating value. Business-to-business organizations, in particular, may be knowledgeable about the purchasing managers responsible for buying their products, but remain unaware of the day-to-day needs of the actual users of their products. New digital operating models will need to close these learning gaps to deliver hands-on, data-driven insights.

Successful digital businesses today are centered on encouraging user empowerment in ways that are radically different from their predecessors, all in an effort to create mutual value for both the business and its users:

- User funding such as crowdfunding or lending platforms, allow users to engage with, influence and gain first access to new products from their earliest conceptions. In addition to funding, businesses gain a test market, a crowd of beta developers and word-of-mouth marketing that allow them to gauge enthusiasm and iterate new functions with real use cases.

- User assets are being aggregated and exchanged through increasingly sophisticated layers of software and algorithms. Uber and Airbnb may be the most famous examples, but even industrial equipment and manufacturing facilities will soon be connected in ways that pair the demands of users with the excess capacity of asset owners.

- User contributions and verifications whether in the form of content, data, computation or feedback, enable new levels of real-time information and trust that are impossible to achieve with company staff alone. Decentralized contributors are now vital to everything from Wikipedia, Reddit and Genius to FixMyStreet, Missing People and the blockchain ledgers powering Bitcoin and other financial services.

Waze, a social navigation app, effectively crowdsources traffic reports from its user base. It does this by gathering both passive data, such as driver position and speed, and active data, including individual reports on congestion, accidents, construction and more. In return, users get precise, real-time route suggestions that are often far more accurate than traditional traffic reports.

2. Connected products and devices

Products, once connected, provide manufacturers with entirely new insights into distribution and usage patterns. Single products can be continuously improved via software updates, and larger object networks can be optimized for improved system efficiency. Most importantly, this connectivity creates new services and business models that provide a broader utility that is more valuable and more dynamic than the physical product itself.

Examples of value-added services made possible through connectivity include:

- Dynamic pricing, in which manufacturers charge by the actual usage and performance delivered, rather than through uniform point-of-sale transactions.
- Bundled upgrades, where product improvements and new services are sold on an on-demand basis, much like software-as-a-service subscriptions are sold today.
- Variable service models, allowing, for example, a car manufacturer to sell added horsepower upgrades, travel assistance or additional entertainment services tailored to user-specific needs.

Tesla is one example of a company with complex products designed from the very beginning around ICT, software and connectivity. Thanks to a continuous flow of operational data, Tesla provides not just cars but entertainment services, wireless updates and error corrections with no need to visit a repair shop. Customers regularly wake up int the morning to discover that their vehicle has new upgrades and features. Some of these are now so advanced that the cars are increasingly able to drive themselves.

3. Own, shared and open data

Data – whether used to identify new opportunities, improve decision-making, reduce costs or create new products and services – is now a key enabler of business competitiveness. Thanks to increasingly connected devices and business processes, information from nearly every person, thing and digital interaction can now be aggregated and analyzed using new tools. The ability to see new patterns, trends and knowledge in these data analytics is both a vital capability for any business as well as a measurable source of value generation in even some of the more traditional industries:

Examples of value-added services made possible through connectivity include:

- Sensor-enabled analytics allow the optimization of large, complex networks to create vastly improved levels of efficiency. GE, for example, is implementing sensor networks to alleviate congestion and maintenance issues in the freight train operations of Norfolk Southern. Each one-mile-per-hour increase in average speed is estimated to be worth $200 million dollars, with the goal of this partnership to increase speeds by up to 4 miles per hour.
- Predictive analytics and data products can now be created using large streams of real-time customer data. These types of systems allow companies like supermarket operator Kroger to sell purchasing data from more than 50,000 loyalty card holders to vendors who stock shelves and customize future products. Used responsibly and with the appropriate privacy assurances, this real-time information has the potential to benefit customers with tailored products, vendors with increased sales and Kroger itself with an estimated $100 million in annual data sales.
- Large-scale empirical analysis, as in the cases of genome sequencing or optimizing transportation networks, allows for more precise and proactive decision-making as well as increased automation. In the field of healthcare, treatment decisions can now take into account more complete patient histories, genetic information and personal lifestyle habits, thus leading to more effective, patient-specific treatments.

UPS, the logistics and delivery company, is currently using a big data analytics solution known as Orion to give drivers near-instant route calculations that were previously impossible to achieve. Estimating that just a one mile reduction in the average daily route across its fleet would amount to as much as $50 million in savings, the company had already saved 1.5 million gallons of fuel after implementing Orion in less than 20% of its fleet.

4. Platforms for new resources

As complete, off-the-shelf business capabilities become increasingly affordable and accessible, the boundaries between the assets businesses own, versus those they borrow, buy or share, are being erased. Innovative technology platform providers are quickly stepping in to fill this need for new functions, marketplaces and networks of relationships to become tomorrow's digital business infrastructure providers. Instead of managing the bulk of value creation within one's own organization, tomorrow's business leaders will be responsible for the complex task of managing the multiple platforms, partners and independent contributors who make up the company's value creation network.

Examples of value-added services made possible through connectivity include:

- Valuable logistics services, as when Uber dramatically simplified the transactions between car drivers and those who need a ride, are now possible due to the geolocation, mapping and payment devices we all carry in our pockets. Similar interfaces and algorithms, which can be scaled and adapted for a wide range of functions, are now emerging in areas such as connected things, industrial manufacturing and supply chain management.

- New digital marketplaces now allow contributors to sell or lend underutilized assets such as car space, apartments, creative labor or tools, in more efficient and flexible ways. Amazon's Mechanical Turk and others are creating new marketplaces for services, while other marketplaces are developing to provide access to manufacturing facilities, investment capital and community innovation platforms.

- Cloud computation platforms are making it possible to securely manage the mind-boggling amounts of data produced by embedded sensors, user interactions and digital processes. Once compiled, computed and analyzed, the unique collection of data produced by every business is likely to accelerate innovation and allow managers to experiment with new services and features in real time.

Google Maps has evolved rapidly from its early days as a desktop web mapping service. Today it is the widely used default for a range of geospatial data applications – from public transport navigation and Street View to business location listings and in-vehicle GPS navigation. Thanks to Google Maps API it is now embedded in hundreds of thousands of websites worldwide, and in 2013 Google Maps became the world's most popular app for smartphones, both of which secure its position as a dominant platform for geodata for years to come.

8. ASSESSING OPPORTUNITIES FOR TRANSFORMATION

Clearly, there is no one-size-fits-all approach to digital transformation. Every business must start by assessing its current value proposition and the threat posed by potential disruptors. A closer self-evaluation can reveal the most promising opportunities for organizational change.

In this report, we've outlined a number of the accelerating forces of technological and organizational change that continue to challenge established enterprises. But to turn these insights into actionable strategy, executives will need to carefully examine their businesses' strengths, weaknesses and vulnerabilities in the face of a fast-changing marketplace. Initially, this means posing the following questions:

1.
What is the risk that an innovative new player could significantly reshape your market by better serving end users or by reshaping the cost structure of your industry?

- Low risk: Utilize ICT to further reduce costs while improving the value and benefits of your offering.
- High risk: Continue to examine the nature of these risks and opportunities by asking the following questions:

2a.
If the likelihood of such a disruption is high, where will the utilization of ICT have the greatest impact?

- Back end
  Production
  Industrial structure
  Broader changes in regulation
- Front end
  Consumption
  Distribution
  Business models

2b.
What is your business' capacity to innovate and undertake radical business model change?

- High: Reassess your business model and undergo changes necessary to lead the disruption within your industry.
- Medium: Become a provider to new players and improve your business' ability to provide them with enhanced capabilities.
- Low: Launch new initiatives and build new capabilities outside your current business. Seek opportunities in adjacent markets/industries.

Based on your answers to the above questions, define the scale and scope for your transformation strategy. As a guiding framework, we've outlined five key transformation opportunities ranging from the launch of innovative new service offerings to gradual investments in new digital capabilities. Where does your business fall on this spectrum of disruptive innovation? And how can your business stake its claim in tomorrow's ICT-enabled ecosystems?

Opportunity 1: High risk of disruption, high innovative capacity

Reconfigure offering to provide ICT-enabled services for new forms of consumption and use cases.
Envision future consumer/user desires and emerging value systems due to processes of digitization and datafication. Analyze and describe new functions and use cases that need to be solved. Use ICT to repackage the offering as a connected service outside the organization to solve customer requirements in radically new ways.

Questions to ask:

- How will ongoing technological developments reshape the desires of end users and what new user desires will emerge? On the front end, how are consumption patterns changing and how can you meet these needs to bring more value to the market? On the back end, how is your business model affected and how can ICT simplify value generation or create radically new cost structures that disrupt the offering?
- What does the most simplified or streamlined value configuration look like? In terms of internal development and from a competitive actor perspective, what does this new ecosystem look like and which players are needed?
- Starting outside the established company, how can the existing core business be applied to realize a radically new solution to customer's needs? Should you reshape or disrupt your own business? If you start outside your business, how will you adapt your core offering to suit the new proposition?

By combining one or multiple products with digital services, new functionality can be created to fulfill demands or create experiences that currently have no solution. For decades, automotive companies have assumed that private ownership of incrementally improved vehicles was the only solution to personal mobility needs. With digital technologies – often developed in collaboration with third-party technology and software companies – they now have the opportunity to offer mobility services ranging from personalized entertainment and navigation to car-sharing, connected fleets and even semi-autonomous vehicles.

Opportunity 2: High risk of disruption, medium to high capacity to innovate

Leverage your own innovations through new platforms and channels, including those owned by others.
Find new ways to lower barriers for customers and outside contributors, making offerings easier to find and access in more flexible forms and through improved user interfaces. Carefully weigh the costs and benefits of available digital platforms and marketplaces to expand reach to new groups of potential users and collaborators.

Questions to ask:

- What are the major barriers to entry for new customers, suppliers and collaborators? In what ways could these be removed or dramatically simplified?
- Which platforms and channels could make it possible to eliminate intermediaries and become directly accessible to new and existing customers?
- In instances where intermediaries can be removed, in what ways can you pass on this value to customers – either in the form of reduced prices or more responsive, individualized services?

Tomorrow's business platforms are based on a fundamentally new set of core technologies. Powered by cloud, mobile and data analytics solutions, these platforms make it possible for nearly any innovation to be made more accessible, personalized and interactive, while delivering greater business insights. Find ways to radically simplify your offering to provide more direct and responsive forms of value to customers and collaborators. Implement new forms of data analytics that enable the rapid evolution of your products and services.

Opportunity 3: High risk of disruption, medium innovative capacity

Incrementally build new platforms, expand ecosystems and value offering.
Market advantages are shifting from those who supply successful individual products to those who control and contribute to powerful platforms. Define your business' relationship to these platforms and their users to guide investments that create new forms of value for a broader array of ecosystem participants.

Questions to ask:

- If the platforms necessary to your company's future don't yet exist, how can you gradually build them? What outside developers, partners or competitors might need to be onboard to support this vision?
- What new digital arenas are emerging outside and adjacent to your industry, and what is your company's role in the expansion of related ecosystems? Is this an opportunity to expand your value offering?
- Which are the most likely venues for new economies of aggregation and how can your business benefit from the resulting network effects?

Most often, building a technology platform from scratch is an extremely daunting task. In almost all cases, it begins with strongly loyal base of existing users, a highly successful product, or other resources that are already critical to a significant segment of the market. Little wonder, then, that companies like Philips (lighting), Samsung (TVs and smartphones), and a wide array of home security systems, smoke detector companies and others are leveraging their current products to enter the growing market for home automation systems. Startups like Nest are generally the exception, but Nest itself was founded by Apple designers and engineers, and was quickly bought up by Google. Whether your business intends to be the visionary for a new ecosystem, an orchestrator of multiple services, or a marketplace for third parties, a successful new platform will likely demand long-term strategic investments as well as strategic collaborations with outside developers and even competitors.

Opportunity 4: High risk of disruption, low capacity to innovate

Redefine your business' core competencies in relation to other industries and emerging value networks.
Reassess your company's purpose for an era in which industry boundaries no longer exist. Your current and future core competencies may be highly valuable to a far broader range of users, suppliers and other companies than you might realize.

Questions to ask:

- Is the purpose of your business too narrowly defined? If so, what broader utility could be provided that extends far beyond your current market?
- What user needs does your business understand better than anyone else, and what technologies are now available to strengthen and leverage these insights in new ways?
- What future competencies and outside talents will you need to survive in tomorrow's shifting value networks, and how can your leadership build and attract them?

As industry boundaries blur and become interconnected through new digital ecosystems, customers will follow to the point of least friction. Existing core competencies can be realigned to deliver value across industries and in new marketplaces. Where tomorrow's value networks are just beginning to take shape, now is the time to develop and deliver the capabilities needed to seize a prominent role in the creation of new forms of value. Cross-industry collaboration is more necessary, and potentially more beneficial, than ever before. Invest in outside ideas and experiments that might inspire and redirect the current organization toward new ways of working needed to serve tomorrow's users.

Opportunity 5:
Any risk of disruption, low capacity or low urgency to innovate

Vitalize your existing business through digital transformation.
Invest in new digital capabilities that support your purpose: integrated user experiences and interfaces, digitally connected products and services, data-driven decision making, and cloud-based platforms. Create systematic ways to experiment and observe the results of these investments, frequently adjusting and adapting as the market changes and as new insights are gathered.

Questions to ask:

- What efficiency gains can be made by transforming existing processes with the help of digital tools and platforms?
- Which pain points could potentially be solved, both internally and for customers?
- What digital strategies could be applied to reorient the business towards a more complete user focus?

Encourage pockets of innovation with rapid, user-focused learning cycles. Invest systematically in digital capabilities that increase the speed, scalability and data insights that foster these innovations. Existing businesses can also be expanded to new geographical markets, adjacent industries or neglected market segments by repackaging current offerings in new digital channels. Large banks and other traditional financial services companies are currently under extreme pressure to renew their customer interactions with seamless digital services in order to defend against smaller financial technology startups.

9. CONCLUSION

ICT has unleashed an era of increased innovation where established players are continually challenged by new markets and new logics of value creation. Seizing this opportunity to change will require an evolution of business models, a reevaluation of current skills and talent and a redefining of the boundaries of both geography and current value propositions. Those who succeed in this monumental task stand to reap the significant benefits of new users, connected things, data-driven insights and platform-based resources.

In a world defined by accessible digital resources and lower barriers to entry, past strategies that utilized ICT to defend market advantages and cuto costs are no longer sufficient. A simple look at today's most ambitious Silicon Valley startups, many of whom have industry disruption as a core objective, should suggest that a more innovative and proactive approach to change is essential.

By taking advantage of the benefits of digitization an the new technology platforms available, established players should seize the opportunity to challenge their own operating models and value propositions, creating the conditions for startup-like experimentation to flourish wherever possible. This cultural transformation will take strong leadership as well as new forms of autonomy, decision-making, revenue models, resource management and more. But self-disruption, however plagued by uncertainty it may be, is certainly preferable to waiting for outside disruptors to emerge at full scale.

Only by creating new ICT-enabled assets and capabilities, and by removing the barriers to organizational learning that exist in today's risk-averse corporate environments, will it become possible to build a twenty-first century operating model with offerings capable of thriving in tomorrow's Networked Society.

Ericsson is the driving force behind the Networked Society - a world leader in communications technology and services. Our long-term relationships with every major telecom operator in the world allow people, businesses and societies to fulfil their potential and create a more sustainable future.

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