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Digital enterprise: how to survive disruption and thrive in the digital age

To survive disruption and thrive in the digital era, incumbents need to become digital enterprises, rethinking every element of their business.

One of the defining characteristics of the digital revolution is the plummeting cost of advanced technologies. Cheaper and better technology is creating a more connected world: today, there are 8 billion devices connected to the internet; by 2030 it is forecast that there will be 1 trillion. And the ‘combinatorial’ effects of technologies, such as mobile, cloud, sensors, analytics and the Internet of Things, are accelerating progress exponentially.

The pace of change is accelerating through the combinatorial effects of digital transformation

The astonishing pace of technological advances means that incumbents need to transform themselves into digital enterprises to thrive. This transformation will need to be far more profound than merely investing in the latest digital technologies.

Incumbents face formidable challenges in implementing changes in these areas. The innovator’s dilemma can thwart efforts to seek out new revenue sources and implementing innovative business models is a complex endeavour.

Companies will need to search for new business models, fundamentally rethink their operating models, revamp how they attract and foster digital talent, and consider afresh how they measure the success of their business.

Source: World Economic Forum / Accenture analysis

We focus on four themes that are important for companies looking to thrive as digital enterprises:

1. Digital business
2. Digital operating models
3. Digital talent and skills
4. Digital traction metrics

The Digital Transformation Initiative
The Digital Transformation Initiative (DTI) is a project launched by the World Economic Forum in 2015 as part of the Future of the Internet Global Challenge Initiative. It is an ongoing initiative that serves as the focal point for new opportunities and themes arising from the latest developments and trends from the digitalization of business and society. It supports the Forum’s broader activity around the theme of the Fourth Industrial Revolution.

To find out more about the DTI project, visit reports.weforum.org/digital-transformation
At first sight, the digital revolution poses an existential threat to incumbents. But we believe they can thrive in the digital age – if they adapt.

Just as the steam engine and electrification revolutionized entire sectors of the economy from the 18th century onward, so the falling cost of technologies such as robotics, artificial intelligence and data analytics is beginning to dramatically alter today’s industries.

The cost of key technologies is falling rapidly

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<td>Drones</td>
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<td>This acceleration in technological innovation is being mirrored by the ever-faster pace of business. It used to take Fortune 500 companies an average of 20 years to reach a billion-dollar valuation, but today’s start-ups are getting there much quicker.</td>
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Surviving digital disruption (continued)

Time taken to reach a valuation of $1 billion or more

During 2015, around 70 start-ups attained unicorn status, achieving valuations of $1 billion or more. The rise of the unicorns has implications for incumbents. Hundreds of start-ups are now attacking traditional markets, thanks to the democratization of technology, increased access to funds and a rising entrepreneurial culture.

**$470 billion**
Combined valuation of top 100 start-ups in 2015

**$3.6 trillion**
Combined valuation of top 10 S&P 500 companies in 2015

The picture may seem bleak for incumbents but the game is not over. They have significant resources such as hard assets, brands, global distribution, customer relationships, data and decades of institutional know-how to harness for their digital transformation. In a sense, they are too big to fail.

Incumbents do, however, need to develop digital capabilities to survive. Without these, they may not go bankrupt but will have to settle for a low-margin utilities model for their business.

Source: World Economic Forum / Accenture analysis

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**Source:** World Economic Forum / Accenture analysis
1. Digital business models

Incumbents can survive disruption and thrive in the digital age, but they will need to learn to disrupt themselves.

Incumbents looking to become digital enterprises face two main challenges:

1. The business model that served them well for decades has been disrupted by digital innovation and no longer works as desired.
2. Attempts to create new, viable business models for the digital age will flounder unless a company is willing to disrupt itself. This bind has been termed ‘the innovator’s dilemma’.

Besides the fear of cannibalizing profits, other obstacles standing in the way of incumbents looking to launch new business models are a risk-averse culture, a lack of creativity to identify radically different business models, and insufficient decisiveness to commit resources to experiment with new models.

Despite these difficulties, some enterprises have managed to successfully innovate and change their business models (see case study).

How to disrupt yourself

The decision to entirely rethink an existing business model is a difficult one to take, but once it’s been made, a traditional company needs to find the most effective way to disrupt itself. We have identified a three-step plan:

1. Don’t mess with your core business but inspire innovation at the edge of your company. Look to projects on the periphery of your company that are focusing on new products, services or customer segments which are aligned with disruptive trends in your industry.
2. Hire ‘black ops’ or ‘hacking’ teams. These teams work in the shadows, with a low profile in the organization. The team should ideally consist of millennials and digital natives with a sole mission to attack the mothership.
3. Try to copy Google. Establish an internal accelerating technology lab to focus on big ideas (as Google does with life extension, Google Glass, self-driving vehicles and Project Loon) and create a partnering programme with accelerators and hackerspaces.

Case study: Michelin Solutions

Michelin has leveraged the Internet of Things (IoT) to shift from the business of selling tires to selling outcomes (performance promise backed by a money-back guarantee). EFFIFUEL™ is a comprehensive ecosystem including sophisticated telematics, training in eco-driving techniques and the EFFITIRES™ optimized tire management system. The service can lead to a reduction in fuel consumption of 2.5 litres for every 100 kilometres driven, equivalent to at least a 2.1% reduction in total cost of ownership for truck fleet operators.

Sources: Michelin
Five ways to build disruptive business models

**Build**
Might be the best route:
- When the opportunity is related to the company’s core business
- If there is still time until the market’s inflection point
- If the company has the opportunity to hire the necessary talent

**Buy**
Usually most appropriate:
- When there is a strategic imperative to ‘own’ a market
- If the market inflection point is close and hiring the right talent isn’t possible
- If the new opportunity bears little relation to the corporation’s current business model

**Partner**
When there is no strategic need to own
- Learn more from a digital native about the market and its partner’s model
- Useful when it makes sense to have an eye towards deeper partnerships or acquisitions in the future

**Invest**
- Allows an established company to grow with the right skills and capabilities
- Avoids hindering entrepreneurial forces with a setup focused on internal governance and reporting, undermining the start-up’s agility, velocity, etc.

**Incubate / Accelerate**
- Close relationship to the funding company, deploying corporate internal capabilities, infrastructure and resources to the start-ups
- Companies can benefit from an increased deal flow in business models and technologies

Source: Accenture analysis

In collaboration with Accenture

To find out more about the DTI project, visit reports.weforum.org/digital-transformation
2. Digital operating models

Incumbents may need to reassess and reinvent every aspect of their operating model to keep up with agile and asset-light rivals.

To keep up with the digital natives, many incumbents will not just have to change their business model but also how they deliver that business model, re-examining every aspect of their operations.

Profits are shifting to asset-light, idea-intensive industries that revolve around intangibles such as brands and software, meaning that capital-intensive industries are witnessing a decline in margins.

17% Profit share of asset-light, idea-intensive companies in the West in 1999
31% Profit share of asset-light, idea-intensive companies in the West in 2015


Five ways to create a digital operating model

1. Introduce modular operating models.
   Modular operating models replace rigid approaches to technology, data and processes with flexibility.

2. Create an effective digital strategy.
   CEOs should move to an experimentation-oriented focus that uses real-time data to give instant feedback about strategic initiatives.

3. Embed lean start-up principles.
   At the heart of lean start-ups are two ideas: eliminate all expenses that don’t create value for the customer, and fail fast, fail often.

4. Move to multi-speed IT operations.
   Incumbents need to foster an open, impatient culture that looks to collaboration and partnerships to create technologies faster than they can be built independently.

5. Create an operating model that supports partnerships and platforms.
   Ecosystem partnerships offer benefits such as operational efficiencies, scalability, innovation and a better customer experience.

Case study: Schneider Electric and Box

Schneider Electric uses Box’s cloud-computing solution for both internal and external sharing of files. Before settling on Box, Schneider’s IT team conducted an audit of cloud-based solutions. Key criteria included user-friendly UI, simple global document sharing and universal mobile access.

During Schneider’s 4,200-person pilot, employees were inviting colleagues to join so quickly that Box took off without any push from IT – at a rate of roughly 1,000 users every 1.5 weeks. As the rollout continued, IT integrated Box with the corporate social networking app Tibbr to get feedback from employees. Schneider currently has roughly 67,000 users on Box and adoption continues to increase. Schneider has been able to offload its on-premises file servers, cutting costs by 30%.

Source: Schneider Electric Corporate Information, box.com
2. Digital operating models (continued)

Case study: Xiaomi
Xiaomi focuses on low-end Android smartphones. In 2014, it sold 61 million handsets bringing in annual revenues of more than $12 billion. Xiaomi promotes an entrepreneurial culture, fostering a family-like setup, focused on mentoring, collaborations and adhocracy. Xiaomi’s flat structures consist of its core founders, department leaders and 4,300 employees with an intense focus on performance and quality. The company engages with customers in an informal way by involving fans in discussions on product design, product development and promotions.

Xiaomi’s innovative approach is paying off. Its year-on-year sales of smartphones tripled in 2014, and since June 2012, the company’s market valuation has increased tenfold to $45 billion.

Sources: Xiaomi; ibtimes.com; forbes.com; Canalys
3. Digital talent and skills

Enterprises will need to attract and retain digital talent but also create a culture in which employees, on-demand workers and robots can work effectively together.

A skills crunch is making the challenge of attracting and retaining the right talent more pressing for enterprises than ever. Critically, in the coming years, millennials will represent a major source of talent with the right skills. However, it will be a daunting task to attract and retain them. To make the situation harder, organizations now have to recruit and operate with greater transparency, as peer-to-peer reviews allow more insights into the inner workings of a company.

The skills crunch

A successful strategy for recruiting and retaining talent stands or falls on the support it receives from leadership.

The impetus to set, develop and foster this digital culture has to come from the top.

Yet relatively few companies make the radical changes to their boards and leadership that are needed.

Sources: Rio Tinto, Mining Weekly

Case study: Rio Tinto

Rio Tinto is empowering its workforce with intelligent tools in its 'mine of the future'. The initiative is improving safety, productivity, energy consumption and environmental impact. The mine of the future concept relies on people and computers working together, one augmenting the other, rather than viewing human and machine as mutually exclusive sources of knowledge. Workers are empowered to operate more effectively on the ground. Software interprets complex data sets and creates a user-friendly 3D display of a mine that is easily and quickly understood by the mining workforce.

Sources: Rio Tinto, Mining Weekly

73% of CEOs cite skills shortages as a threat to their businesses

81% say they are looking for a wider mix of skills when hiring

Source: PwC, ‘Strategy for the Digital Age: A New Take on Talent’
3. Digital talent and skills (continued)

Seven steps to building a digital workforce
Building a digital workforce goes beyond just recruitment and talent development – it also requires incumbents to think about enhancing their workforce in other ways.

1. Attract and retain talent
Attracting and retaining talent starts by listening to what employees are saying about a firm, both externally and internally. Referred employees perform better, so enterprises should incentivize their employees to use online networks to refer potential employees.

2. Become an employer of choice for millennials
Initiatives to boost the recruitment of millennials include identifying where their digital skills will best fit in the organization, offering career development programmes and building workspaces designed to attract digital talent.

3. Create a workforce with digital skills
Organizations need to actively develop the skills they need in-house by making training a critical component of their talent management strategy. Bring new skills into the organization by hiring digital leaders and digital natives.

72%
Percentage of the 300 largest companies in the United States, Europe and Asia that do not have digitally literate board members.

4. Bring leadership into the digital age
Leaders need to hire people with digital mindsets and a willingness to challenge the status quo. A possible way for organizations to facilitate change at the top is by creating technology immersion workshops or advisory committees for boards.

5. Foster a digital culture in the enterprise
Factors that set a digital company’s culture apart include a strong sense of purpose and a diverse high-quotient digital workforce. Leadership needs to release people’s creativity and apply lean start-up methodologies such as hackathons and design thinking.

6. Create environments where humans and robots can work successfully together
In the event that jobs are threatened by automation, employers will have to assess whether it is possible to reskill workers, either to work alongside robots or in new roles.

7. Integrate your on-demand workforce
The most effective way to recruit on-demand workers is through online talent platforms. The extended workforce can help improve the overall quality of the talent pool.

Case study: Zappos
Zappos, an online clothing retailer, believes that “the best ideas and decisions are made from the bottom up”. Soon, Tony Hsieh may not carry the title of CEO, but become another employee with no title. Holacracy, a management structure based on the tasks a company needs to accomplish rather than a standard reporting structure, is at the core of the Zappos culture. Other initiatives include empowering employees to deal with customers in the way they see best, giving them the freedom to let their personalities shine on the Zappos Twitter account, and encouraging them to work remotely at coffee shops and co-working spaces to increase personal connections that will boost creativity.

Sources: Business 2 Community, Zappos

Source: Russell Reynolds, “2014 Digital Director Board Study”
4. Digital traction metrics

To measure the success of their digital transformation, enterprises need to look beyond traditional financial key performance indicators and focus on digital traction metrics.

Many companies have discovered that traditional financial key performance indicators (KPIs) are no longer effective at measuring the success of a digital business.

Being able to measure digital traction – and find ways to boost it – is important for two key reasons:
1. High levels of digital traction can benefit a company’s performance in a number of ways. For instance, a high net promoter score (NPS) would mean that the cost of marketing falls to zero.
2. Digital traction can enable companies to increase their valuation, because digital enterprises have more scalable and more highly engaged customers than traditional companies.

Convince your investors about your digital journey

Listed corporations need to convince investors of their digital transformation. This requires solid and visionary C-level-driven communication towards investors, focusing on the long term and setting out a clear vision of their approach to digital transformation.

Digital transformation does not happen overnight. Companies, therefore, need to move away from providing quarterly guidance aimed at appeasing the investor community. Enterprises need to convince investors that they are embracing disruption, and focus on the longer term.

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<tr>
<th>Digital Traction</th>
<th>Scale</th>
<th>Active Usage</th>
<th>Engagement</th>
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<tr>
<td>e.g. Unique visitors</td>
<td>Number of visitors</td>
<td>Number of registered users</td>
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<tr>
<td>e.g. Daily active users (DAU)</td>
<td>Number of active users</td>
<td>Monthly active users (MAU)</td>
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<td>e.g. Time on site</td>
<td>Net Promoter Score (NPS)</td>
<td>Customer satisfaction index</td>
<td>Downloads</td>
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Case study: Focus@Will

Focus@Will, a Los Angeles based start-up, offers neuroscience-based audio services that help in increasing focus by ‘zoning out’ distractions. The company measures a dozen digital traction metrics in real time. Based on the insights generated from its digital traction metrics, Focus@Will provides tailored solutions to its customers.

Sources: Exponential Organizations by Salim Ismail, focusatwill.com
Critical questions for incumbents looking to go digital

It is not too late for incumbents to transform themselves and thrive in the digital world, but they need to act now.

We may still be in the early days of the digital revolution, but it is the strategic plays that companies make today that will define their long-term future in the digital economy. With that in mind, we have identified recommendations and questions to aid incumbent industry leaders in their digital transformation.

**Identify, develop and launch new, digital business models**
To what extent have you enhanced your strategic toolkit? Do you have build, buy, partner, invest and incubate / accelerate as possible strategic choices?

**Set up a successful corporate venturing business**
Do you feel secure in sensing and anticipating digital disruption? Do you need to bolster corporate-venturing capabilities?

**Understand and leverage data**
How much of your revenue is coming from new sources of digital business? Is the growth rate on a par with or higher than digital competitors?

**Consider increasing your investments in security**
Is investment in security an important board-level issue? Have you increased your investments in security – is your budget at 0.3% or 3% of revenues?

**Integrate automation and on-demand workers into the workforce**
Have you identified areas in your business where automation is most relevant? Are you efficiently leveraging an on-demand workforce and automation?

**Establish the right digital traction metrics**
Have you established the right behavioural KPIs to measure the traction of your digital business models? To what extent are capabilities and mechanisms to track metrics in real time in place?

**Build a high-quotient digital workforce**
Do you have a digitally literate leadership team? Have you established appropriate training schemes to overcome the digital skills gap and reskill your existing employees?

**Convince your investors about your digital transformation journey**
What steps have been taken to convince your investors about your digital vision and the long-term value-creation impact of your digital transformation journey?

**Re-examine every aspect of operations**
Is digital explicitly integrated into strategic plans in and across business functions? Does your operating model flexibly support ecosystem partnerships, either by creating your own platform or by ‘plugging in’ to others?

For our detailed recommendations, please read our in-depth report on digital enterprise, available at [digital.weforum.org](http://digital.weforum.org).
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References
For a full list of sources and references, please refer to our in-depth report on digital enterprise, available at digital.weforum.org.