Embracing a digital future

“Digital disruption” is already a feature of the business world, presenting great opportunities and grave risks in equal measure. This article explores the digital trends that are having the biggest impact on business and argues that, for those companies that are forward-looking, the opportunities greatly outweigh the risks.
Embracing a digital future

To many people, it feels like a digital future has already arrived. Smartphones put the resources of the web in our pockets. Social networks facilitate near-constant communication and virtual interaction – and even played a role in the Arab Spring in 2011.

But the exciting new technology of today will look tame in comparison with the technologies that could emerge tomorrow. Google Glass promises to put the function of a smartphone in your field of vision, giving users uninterrupted access to “augmented reality.” And innovations will be far more than just gimmicks, with plenty of potential real-world applications. In health care, for instance, Google has already unveiled plans to produce contact lenses that can measure diabetics’ blood glucose levels. Meanwhile, medical firm Second Sight is developing “visual prosthetics” that could give blind people the chance to regain some vision.

Whether or not the “augmented reality” of the future sounds like utopia, there is no doubt that tomorrow’s digital innovation will have a profound impact on our personal, social and professional lives.

It will be big business too: the “wearable technology” sector alone is expected to expand rapidly in the near future, with some experts forecasting growth of between US$10b and US$50b in the next five years. It seems inevitable that digital innovation will make the future look very different. Despite this, companies today must face up to the fact that “digital disruption” is already a feature of the business world. And it presents great opportunities and grave risks in equal measure. If they are to be successful, modern businesses must account for digital disruption at every stage of their value chains and modify their strategic planning accordingly.

Working in the future, today

Even without disruption from digital, businesses today operate in a challenging environment. The old certainties are disappearing as a new world emerges. After decades of dominance, the developed economies are struggling under the burdens of huge public and private debt, credit shortages and reduced consumer spending. At the same time, the emerging world is taking an increasingly substantial share of global GDP – and despite the recent slowdown, this is expected to continue.

In the coming years, the rise of the emerging markets will completely change the global economy. It is estimated that three billion people from the developing world will leave poverty and join the global middle class over the next 20 years. This shifting landscape brings with it inherent risks for businesses. And this is being exacerbated by external factors, such as political upheavals in the Middle East, the financial crisis and climate change.

But businesses have always faced these kinds of uncertainties, and the global economy has never been static. And, of course, as well as producing risk, the growth of the emerging markets presents many new business opportunities – from supply chain savings to new customers. What makes the current environment so different and so challenging is that these “traditional” business risks are being compounded by the unprecedented development of digital technology, which, in only a few years, has become embedded in almost every aspect of every business.

Of course, these two trends are not entirely separate: technological innovation is integral to broader economic change and vice versa. Nevertheless, it is the combination of these two factors that is leading to changes that are affecting the global economy at a fundamental level. In fact, some experts speculate that capitalism is entering an entirely new phase, suggesting that we can expect to

3. “Google unveils ‘smart contact lens’ to measure glucose levels.”
4. Innovating for the next three billion, EY, 2011.
“Modern businesses must account for digital disruption at every stage of their value chains and modify their strategic planning accordingly.”

see levels of change last experienced in the 19th century, when the telegraph and the railway revolutionized commerce.5

Four digital trends
According to a survey conducted by Oxford Economics in 2011, the four areas of digital change that will have the greatest impact on businesses are: cloud computing, data, social media and mobile technology.6

First, the cloud has completely changed the way in which companies access computing facilities. Businesses no longer need to buy expensive software licenses; instead, they are able to use programs on a “pay as you go” basis, accessing them via the cloud. This can result in major savings and increased flexibility for businesses. Data storage in the cloud is also widely available, meaning that data can be used whenever it is needed.

And data itself is also a major area of change. The collection, storage and analysis of huge volumes of data is crucial to the operation of many parts of the modern business, and firms have access to more data than might have seemed possible only a few years ago. Although this can provide unrivalled insights, amid the constant onslaught of data, it can be difficult to detect useful intelligence. Data collection needs to be carefully managed. Having too much data is no better than having too little. In order to extract real insight, businesses need to take a value-based approach to collecting data - and ensure that they keep their goals in sight.

Meanwhile, social media has changed the way people interact with each other in the 21st century. From communicating directly with customers to gathering targeted, accurate data, social media offers businesses many opportunities. However, the rate of change in this sector, and its unpredictable nature, mean that it can be challenging for firms to keep abreast of the latest trends. The market for social media firms clearly demonstrates this unpredictability: many have been valued very highly indeed - even if, in their current form, they do not take much revenue. For instance, in February 2014, Facebook announced that it would be buying smartphone messaging company Whatsapp for US$19b.

Social media is a force that businesses cannot ignore.

Although social networking has a very high profile in the Western media, in global terms, perhaps the most important digital development of recent years has been the spread of mobile technology in the developing world, where it is having a huge impact on the personal and professional lives of many people. Mobiles are opening new markets because they are the cheapest and simplest way to connect people – far cheaper than desktop computers or laptops. The spread of the mobile has enabled some people in Africa, the Middle East and elsewhere to access banking facilities for the first time. For instance, M-Pesa, an African mobile-money business, has more than 17 million customers in Kenya alone - from a population of around 40 million.7 And as smartphones become more affordable over the next few years, their use in emerging nations will expand. So the opportunities for businesses to access new data and new markets in the emerging world through mobile technology are almost endless.


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Two types of risk

The relentless progress of digital innovation also means that companies face risk simply from the speed of change. And this risk is twofold: there are direct risks arising from new digital possibilities, but there is also the risk of simply not keeping up with rapid change.

The direct risks that companies face as a result of digital innovation can be devastating. The internet has brought countless opportunities, but it has also meant that firms can be vulnerable to attacks that they can do little to prevent or predict. For instance, in 2013, hackers caused major disruption to US retailer Target. The discount shopping chain announced that the payment card and personal data details of up to 70 million customers might have been stolen by hackers. A number of customers are suing the company as a result, but the impact on the company’s reputation caused by this breach of trust is likely to be far more damaging in the long run. In addition to seemingly motiveless, anarchic attacks such as this, the internet can also give activists the ability to cause disruption on a major scale. “Hacktivists” who want to make a political or social statement can attack internal computer systems, disabling company emails and posting propaganda materials such as videos or messages online. The impact can be significant. The attack can result in websites remaining offline for several days with a resulting loss in revenues and reputation. Where 20 years ago, anybody who wanted to disrupt a company’s operation this severely would need to have access to its physical infrastructure - its offices, factories or distribution vehicles - today, hackers and activists don’t even need to be on the same continent to cause serious disruption.

Aside from direct threats, the digital landscape’s relentless pace of change also means that many businesses face the more basic threat of being left behind – of simply missing something as the market develops. For instance, firms might fail to get involved in a new platform or social networking tool. Digital trends seem very volatile, so it is extremely challenging for firms to make wise and informed decisions. For example, it is astounding to think that a cultural force such as YouTube was founded only nine years ago, in early 2005. Perhaps it’s more astonishing to recall that YouTube was less than two years old when it was bought by Google for US$1.65b.

Missing out on change can have serious repercussions for a business. It is even possible for a firm to find the foundations of its market completely shifting. For instance, over a relatively short period of time, online shopping has completely changed consumer habits. The closure of many high street shops is a very tangible result of this behavioral shift. Retailers that want to survive have had no choice but to offer online services.

At the same time, businesses also face the risk of spending too much time and money on monitoring change. It can seem that new digital innovations, social media platforms and data resources appear every day, and it can be all too tempting for firms to feel that they need to be involved in everything new. Of course, this is not always practical. Companies need to make wise decisions about which digital platforms and channels will really work for them. As with any business risk or opportunity, having a clearly delineated strategy is crucial to long-term success.

In order to face up to the risk of digital and make the most of digital opportunities, companies should focus on readiness throughout the organization. Businesses need to:

- Identify digital opportunities and mitigate threats
- Account for security concerns when using new digital technologies
- Measure their performance in the digital sphere
- Ensure that they are compliant with the legal and tax implications of moving into the digital domain
• Address and optimize merger and acquisition processes as they apply to digital businesses
• Consider the operational implications of working in different countries and jurisdictions
• Optimize the value of digital to their businesses
• Build a culture of agility and agile innovation processes

No opportunity without risk
A particular problem for businesses is the fact that many of the opportunities that digital creates are also risks at the same time. And this is true right through the value chain. At the strategic level, digital can provide the opportunity to create networked scale and reach new markets; concurrently, the same processes can lead to problems of localization and supply complexity. On a customer-engagement level, digital communications – particularly social media platforms - give companies the chance to exceed consumer expectations and generate high levels of loyalty; however, there is an intrinsic risk of setting the bar too high, and then disappointing customers. For instance, it is relatively easy for a business to be proactive in responding to customers on social media, and this can be a great way to improve customer loyalty and gain insights. However, if companies then fail to act on customers’ requests and suggestions for improvement, this can have a negative effect on their corporate reputation.

The digital revolution could bring great opportunities for the workforce, too. The cloud, remote access and new communication channels can offer flexible working options and the chance for employees to reinvent their roles. But at the same time, mechanization will inevitably lead to redundancies. Furthermore, in the future, more and more employees will be “digital natives” - people who have used digital technology from childhood - and will need and expect different tools in the workplace.
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Increasing complexity

Although it may feel like the internet, mobiles and even social networks are very firmly embedded in everyday life, in reality, companies today are still negotiating a digital frontier. The opportunities are seemingly endless, but the risks can be huge. The complexity of the situation means that businesses are devoting more and more time and budget to digital. It is estimated that total global enterprise profit from digital business will be US$14.4t by 2020 and that the market for digital consulting will be worth approximately US$72b by 2022.10

But to capitalize on this huge potential, businesses need to develop ambitious digital strategies. EY has developed a three-stage process to help clients maximize the possibilities of digital innovation. The EY Digital Realization™ Framework focuses on three phases of the digital journey: create, incubate and activate. As part of the first stage, EY helps clients to focus on defining their digital business offering. It is important in this initial phase for a firm to look at its digital strategies and capabilities, and to ensure that these are aligned with the business’s broader strategic vision. Companies can then identify and design the products and services of their digital offering – ensuring that this will deliver real value.

Having developed a strategy, the second phase of the Digital Realization™ Framework involves the business validating its digital offering. EY helps its clients to test their digital initiatives through small-scale pilot studies that isolate and test business assumptions. This incubation step then leads through to the final activation phase, in which EY helps clients to refine their strategies and commercialize their digital offerings, creating and capturing economic value.

Realizing potential

Although the rapid rise of digital innovation has the potential to cause huge disruption, with careful planning and management, the opportunities certainly outweigh the risks. From finding new markets through mobile technology, to exploiting social networks in the workplace to foster innovative collaboration among employees, the future of business in all sectors will be digital. Firms that don’t anticipate change will find themselves struggling with risk and uncertainty. But those firms that do develop forward-looking strategies to harness digital innovation and technology will be able to reap substantial rewards.

The most important thing for all organizations to realize is that there will be no escaping a digital future. It will not be possible to operate outside the digital domain. This means that the key issue for business to address is how they are going to thrive in a digital environment, maximizing opportunity and minimizing risk. ■

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How can EY support your organization on its digital journey?

**Create**

**Enterprise strategy**
- Define digital strategy and capabilities to meet strategic vision of the business
- Identify and design digital offerings (models, products, services and experiences) that deliver value to the business
- Grow digital capabilities and competencies

**Solution design**
- Digital process design and organization
- Operating model integration
- Digital governance
- Digital risk management
- Digital performance measurement

**Define digital business offerings**
- Intent
  - Define digital strategy and capabilities to meet strategic vision of the business
  - Identify and design digital offerings (models, products, services and experiences) that deliver value to the business
  - Grow digital capabilities and competencies

**What we will do**
- Digital enterprise strategy
- Market opportunity assessment (digital segmentation and experience mapping)
- Digital capability diagnostic (cloud, social, mobility, analytics and emerging technologies)
- Digital insights and ideation workshops
- Digital compass and ecosystem design

**Incubate**

**Solution prototyping**
- Validate digital initiatives and “de-risk” operating model investments through iterative, small-scale pilot experiments to isolate and test critical business assumptions

**Solution development**
- Digital Playbook (business offerings marketing, operations, workforce and enterprise operating model)
- Digital experiments and pilots
- Investment plan and business case
- Partner evaluation and selection
- Digital delivery solutions (cloud, social, mobility, analytics and emerging technologies)

**Validate business offerings**
- Intent
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**Activate**

**Solution management**
- Refine and develop strategy to commercialize opportunities that create and capture economic value for the business

**Commercialize**
- Intent
  - Refine and develop strategy to commercialize opportunities that create and capture economic value for the business

**What we will do**
- Digital process design and organization
- Operating model integration
- Digital governance
- Digital risk management
- Digital performance measurement

**Validate the digital business offerings hypothesis**
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**What we will do**
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**Create Activate**

**Figure 1**

EYs Digital Realization™ Framework

“The direct risks that companies face as a result of digital innovation can be devastating.”

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