The Emerging World Order of Digital Economy: Strategic Perspectives

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Introduction

'Digital economy' refers to an economy that is based on digital computing technologies[1]. It encompasses a global network of economic and social activities that are enabled by information and communications technologies, such as the internet, mobile and sensor networks[2]. However, the term 'digital' itself is not a new one. The *Oxford English Dictionary*'s entry for digital contains evidence for the word as far back as the 15th century with the sense, 'designating a whole number less than ten'. Originally, the word digital was used to describe types of signals that could be interpreted as either 1 or 0. But despite this long history, *digital* was for many centuries an unimportant word. It wasn't until the early 20th century that it became significant and widespread when digital signals, combined with mathematical formal logic came together to produce the first modern computer[3]. Since then, the term digital economy has come to include not just the convergence of computing and communication technologies through the Internet but also the resultant impact of this information and technology on business and commerce.

Klaus Schwab, founder and orchestrator of the World Economic Forum, calls digital the "fourth" Industrial Revolution—after steam power, electricity and computers defined the first three, the next will be shaped by sensors and artificial intelligence. Broadband connectivity, wireless mobility, cloud computing, e-commerce, social media, sensors — will all together transform the world as we know it: how we work, play, consume, interact and stay in touch. The real-time and virtual connectedness between people and things that digital enables today is creating new ways for people and assets to create value and reach customers never accessed before, and this is turning the basic tenets of scale economics on its head[4].

The digital economy is characterised by an all-pervasive adoption of a wide variety of digital, real-time, and networked technologies, products and services that enable people, companies, governments and even machines to stay connected and communicate with one another, gathering, analysing and exchanging massive amounts of information on all kinds of activities. Digital economy is the share of total economic output derived from a number of broad "digital" inputs. These digital inputs include digital skills, digital equipment (hardware, software and communications equipment) and the intermediate digital goods and services used in production. 'Digital Skills' are the digital nature of occupations and the skills and knowledge required of people to perform their jobs. 'Digital Technologies' include the various productive assets related to digital technologies (hardware, software and communications equipment). Lastly, the term 'Digital Accelerators' refers to the environmental, cultural and behavioural aspects of digital components of the economy that support digital entrepreneurship or activities.

The most important components of digital are Social, Mobile, Analytics and Cloud (SMAC) and Internet of Things (IoT). SMAC technologies have now become the essential building blocks of a new platform for digital business initiatives. Entire business models and industries are now digitised and implementing SMAC stacks. This has resulted in an irrevocable change in consumer behaviour across both business-to-business (B2B) and business-to-consumer (B2C) organisations. The speed, spontaneity and pervasive influence of social media have transformed the relationship between companies and their

customers, employees, suppliers and regulators. Emerging technologies such as mobile payments, peer-to-peer payments and mobile apps are creating a new mobile ecosystem. Analytics and Cloud allow businesses to analyse buying behaviour, tapping into their customers and understanding them better, and as a result, can develop products, delivery channels and marketing methods to match this behaviour.
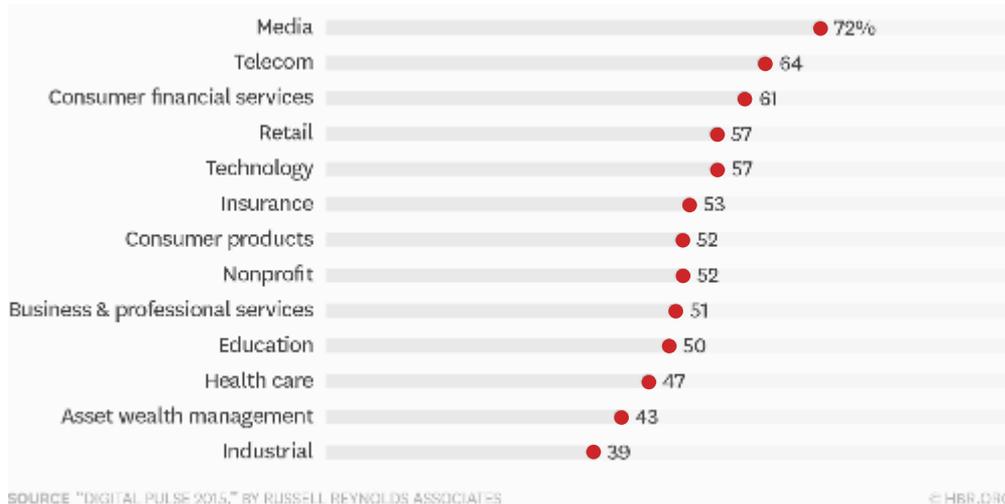
Internet of things (IoT) enables implementation of a complete digital ecosystem, allowing the digital transformation journey to extend itself into the day-to-day life of an end-customer. There are already companies that have leveraged IoT to completely change the way that industry operates, opening up new avenues of doing business. Gartner predicts that by 2020, twenty five billion things will be connected to the Internet and estimates that there are at least 130 million enterprises with approximately three billion people online worldwide. The sheer possibility of opportunities generated through interactions reflects the explosive power of digital[5].

Disruptive Impact of Digital

There are a number of reasons that a business may undergo digital transformation, but by far, the most likely reason is that they have to. It's a survival issue for many. A Russell Reynolds Associates study (Exhibit 1) covering over 2,000 senior executives across 15 industries[6] highlighted that Media, Telecom, Financial Services and Retail are few of the industries most threatened by digital technologies. Dynamic shifts in the market are forcing all the traditional enterprises in industries toward a digital form. However, becoming digital isn't just about rolling out new IT projects; it's about fundamentally transforming the business to make it leaner, more agile and more cost effective. Companies need to tackle many technology and non-technology efforts in parallel using standardized processes and agile techniques to accelerate execution and provide more flexibility to iterate on strategy.

Exhibit 1: Industry-wise dispersion of anticipated digital disruption
Executive who anticipate moderate or massive digital disruption in the next 12 months, by Indusry

Industry	Value
Media	72%
Telecom	64
Consumer financial services	61
Retail	57
Technology	57
Insurance	53
Consumer products	52
Nonprofit	52
Business & professional services	51
Education	50
Health care	47
Asset wealth management	43
Industrial	39

SOURCE "DIGITAL PULSE 2015," BY RUSSELL REYNOLDS ASSOCIATES   © HBR.ORG

Strategic Perspectives in a Digital Environment

The process of digitisation is taking place on a global scale and the benefits for companies on the leading edge of the trend — greater customer insight and reach, higher productivity and the creation of new business models — are already being realised. In many successful companies, 'digital strategy' is fast becoming their corporate strategy and is more than just a token nod to 'digitisation'. No longer just another tool in the marketing toolbox, digital is transforming how companies sell, price, produce and deliver products and services. The shift to a fully digital company will affect every aspect of the companies' operations, from the digital proposition to the business and IT processes that will enable the new model. The process that companies can follow includes:

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[5] Raskino, M., & Waller, G. (2016). Digital to the Core: Remastering Leadership for Your Industry, Your Enterprise, and Yourself. Routledge Publications

[6] http://www.russellreynolds.com/insights/thought-leadership/digital-pulse-2015

Holistic strategy - Before the Internet, business operated primarily in a physical world of "place": It was a world that was tangible, product-based and oriented toward customer transactions. Today, many industries — all moving at different rates — are shifting toward a digital world of "space": more intangible, more service-based and oriented toward customer experience. Digital Strategy, therefore, should be one that converges all the critical elements like Mobile, Social, Cloud, Big Data, Analytics together rather than an isolated focus. The strategy should enable the development of new models and offerings that drive new revenue streams, and the effective redesign of existing operating models. Successful digital strategies should enable companies to integrate related products and services into sophisticated industry solutions, while extending and restructuring industry boundaries, essentially creating whole new industries. Digital strategy should involve key activities like: enabling systems of engagement, delivering consumer-like experiences, integrating systems of engagement with systems of record, creating a sense and respond system, enabling right-time in-the-moment effectiveness, establishing a relationship culture and developing relationship management skills.

Experience-based differentiation – Millennials are becoming the largest cohort of customers (in both the B2C and B2B markets), and their attitudes and expectations are growing in importance. The increasing influence of millennials, and the generations that follow them, is having a significant effect on customer expectations. Raised as digital natives, not only do millennials have starkly different expectations than customers of previous generations, but they can also imagine for themselves how technology can be used to improve their lives, making them much harder to surprise and even harder to delight. There are estimated to be more than 2 billion millennials around the world, accounting for 27% of the adult population in the United States and 24% in Europe. Moreover, millennials are merely the first digitally native generation. All those who follow, from Generation Z onwards, will have no memory of a pre-digital era and expect digital as standard in everything they do. Numerous studies have concluded that millennials prefer access to ownership, prize convenience and demand transparency about how the products and services they consume impact the planet and their own well-being.

Providing superior and differentiated experiences to all customers should be the new focus area for businesses. It is necessary to identify the aspects of customer experience that drive the intended outcomes and then effectively measure the Return on Customer Experience (RoCx). It will become necessary for the company to align internal activities and structures to support the experiences it intends to deliver to the end-customer. Many organisations are building analytics capability to understand customers in more detail. Other companies are conducting analytics-based experiments to drive customer behaviour. Companies are using technology to enhance in-person sales conversations.

Enabling effectiveness - Previous decades have focused on efficiency i.e. to do things in the right manner, but the future focus should be on doing the right things i.e. effectiveness. The main aim of effectiveness thus becomes to drive the desired outcomes and focus on innovation to meet the goals set by the enterprise. To achieve the complete goal of effectiveness, a structural change (organisation, process, policies, procedures, etc.) becomes necessary. Beyond structural change, the convergence of Mobile, Social, Big Data, Analytics, The Internet of Things and Cloud Computing will collectively provide a platform for effectiveness. Advanced digital technology, powered by the SMAC Stack and aided by sensors, can improve business processes in several ways. For example, big data analytics can help in-bound logistics run more smoothly by tracking product movements; the cloud can be used to create uniform business processing platforms; and mobile platforms can enable employees to perform their work anytime, anywhere and on any device. Individual-level work has also been virtualised — separating the work process from the location of the work.

Innovation has become an imperative to enable better responses to the highly competitive, global business environment. Collaboration is indispensable for innovation, both within the company's own boundaries and beyond, with customers, partners, start-ups, universities and research communities. Successful companies are harnessing collaborative digital networks to build ecosystems, such as Amazon, PayPal, Apple and Microsoft. Ecosystems like these are moving beyond linear supply chains to partner with providers of complementary products and services (or sometimes even competitors).

Organisational leadership – Automation can enable companies to refocus their people on more strategic tasks. Automation allows researchers to focus on innovation and creativity rather than repetitive efforts. It also creates streams of data that can be useful in later data mining efforts. By automating, standardising and globally sourcing processes, organisations can become more agile, more responsive to changes in demand, and better able to increase and sustain profitability. Digital technologies fundamentally transform organisations, with the pace of technological change exacerbating the challenge. The hierarchical organisation structures of the industrial economy are giving way to more networked and agile structures.

Businesses need to take into account a wide range of other considerations when evaluating the right approach to build

organisational effectiveness, among these are: the urgency for change; technical and digital sophistication of the organisation; knowledge base and capabilities that are available for digital efforts; and facets of the culture that are likely to hinder or support change or the ability to attract and retain top talent. Enterprises will not only need to attract and retain digital talent, but also create a culture in which employees, on-demand workers and robots can work effectively together. To realise the full potential of technological augmentation, not just to increase productivity but to mitigate job losses from automation, reskilling will be critical.

Conclusion

Digital transformation and disruption are predicted to become ubiquitous across industries. To stay relevant, companies, departments and individuals need to know exactly where business technology is headed, and be sure to stay on top of each shifting digital trend. Change is likely to be the new constant and both companies and individuals need to accept the new reality of constant change to find a place in the digital future.

A digital future is likely to be characterised by rapid increases in geographical connectedness, use of mobile devices and introduction of faster, smaller and more intelligent computers and other connected devices. Companies will need to address not just what consumers want but also be able to divine what consumers may not know they yet need. Technology may squeeze out old jobs, but it will also create new ones. The businesses that succeed in the next 5-10 years will recognise the need to change their strategic mind-sets, embrace constant change and take calculated risks. Despite the uncertainty surrounding digital, for industries and companies that are agile and willing to embrace change, the future remains full of hope and possibility.

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