

Viewing assets as liabilities is counter-intuitive, but digital transformation changes that

Digital natives have been restlessly questing for some time and the business world would do well to heed, advises NABIL ABU EL ATA

ASSETS used to be the foundation on which competitive advantage was forged.

Smaller, more nimble companies could always execute new ideas faster, but assets afforded bigger companies time to respond. Now — as digitalisation breaks down market barriers and the value of speed increases — assets can become a liability.

Ten years ago, it would have been hard to believe that a new bank with 50 employees, and no physical branches, could unseat an incumbent with 200,000 employees and trillions of dollars in assets. Today, that threat is real. Digital native companies like Uber, Airbnb and Netflix have proven that new ideas can spread quickly, and markets can be won

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— without the overhead costs of traditional business models.

Bain & Company reports digital natives have generated 80 percent of the growth in market capitalisation of the top companies over the past 10 years. In response, most, if not all, incumbent companies have digital transformation programmes under way. And yet, the majority

of businesses struggle to find the correct path forward. Accenture estimates that only six percent of companies that embrace new business activities “early and with confidence” are seeing higher financial performance.

The on-demand economy is all about satisfying the needs of consumers in the most cost-effective, scalable and efficient way. Previous investments into assets — including human resources, technologies and infrastructure — hinder this goal. Even when incumbents correctly anticipate the evolving needs of their customers, layering a new model on top of a legacy business almost always fails to match the speed, cost and efficiency of a new business.



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Ultimately, the goal of digital transformation isn't to digitalise an existing state, but to imagine a model placing technology at its core. Making the shift to digital puts pressure on all aspects of an existing business, which must maintain current profits while pivoting the legacy customer experience, products, services and operations.

Digital transformation requires a host of complex decisions, including which legacy business assets to replace versus adapt. With large capital investments, making the choice to dispose of assets is never easy.

While many industry analysts and consultancies offer best-practice and processes to help business leaders deliver analogue companies into the digital age, boards and executives are really looking for clear metrics that prove the proposed changes will support the evolving needs of their consumers — in the most cost-effective, scalable and efficient way.

Proving the case for digital transformation requires new predictive and prescriptive analytic capabilities that can be

used with confidence to build board-level consensus. Many analytic tools provide sometimes confusing and conflicting data. To deliver meaningful and trusted intelligence, these tools must be simplified and / or expanded to cover a wider domain of intelligence.

As companies are transforming, the underlying technology enablers are transforming too. Industries and their metrics allow a glimpse of the future of business analytics. Consider, as an example, the use of the kilowatt-hour (kWh) as a measurement of energy efficiency.

A kilowatt equals 1,000 watts of power. Wattage indicates how much power a device can provide over a relative amount of time. Therefore, a 1,000 watt (1 kW) microwave will heat a meal much faster than a 600-watt model. Because of this relationship between capacity and time, the term kilowatt-hours (kWh) is used to describe energy use. If the 1 kW microwave is used for an hour, it will use one kilowatt-hour (1 kWh) of energy. This then allows us to measure the use of energy over a period of time and compare the

efficiency of one appliance over another.

This same concept can be applied to measure the efficiency of a business if we are able to establish a standard number of business events over a relative amount of time for any business activity. Having this metric would allow businesses to easily compare the cost-to-efficiency ratio of their current assets against a competitor's, or evaluate the gains achieved by moving to a new model. It would also open the path to purchasing units of productivity from third-party providers in much the same way as energy is purchased from a utility company.

This metric, being referred to as TAO.T, is currently under development and could radically change how businesses continually innovate and move with speed and confidence to meet the demands of the Fourth Industrial Revolution.

Knowing that a new model will match the business's cost, scale and efficiency requirements is just half the battle. Transformation risks must also be managed. Here, too, technologies are advancing



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in ways that allow business stakeholders to better anticipate and manage those risks. These new technologies aggregate intelligence across organisational boundaries, and are capable of revealing new patterns of interconnected risks which may result from any internal or external source — including risks associated with hyper-connectivity and disruptive innovations.

Tracking known patterns of behaviours will always be important, but to prevail in the Fourth Industrial Revolution, businesses must expand beyond the limits of statistical models and human intelligence to better understand the complex behaviour of business systems, and discover all circumstances that may cause a breakdown, or unwanted outcomes.

Armed with the knowledge of what will break a system, business leaders are free to achieve a wider and more profound objective that releases their business from the confines of historical patterns.

By pairing the human perception and decision-making capabilities of artificial intelligence with emulative technologies — like those used in physics and chemistry to predict

unknowns — businesses can create a systemic and iterative collection of knowledge, which will provide the rational and unbiased mechanisms that allow established businesses to untether themselves from their legacy assets and redefine themselves in a way that harnesses the opportunities of the digital age.

Take, for example, a bank that wants to increase its transaction-processing capability, and is considering a move to blockchain to fulfil that requirement. Early blockchain test-pilots show promise, but the company is uncertain how to move from experimentation to transformation. Since blockchain is a new technology, past experience and statistical models provide little to no guidance on whether a system can meet the future demands of its users. Nor can it reveal how to manage the transition, or what unforeseen risks lie ahead.

Emulation provides the answers executives are looking for by allowing stakeholders to test transformation plans and uncover risks that may occur under certain conditions — even if there is no historical record of these events happening. The benefit is that

emulation can capture all the dynamic interdependencies of highly complex business systems and cover a business ecosystem as wide as it spreads to reliably predict system behaviours, and expose the risks that other solutions miss.

Once business leaders can realistically quantify the financial and operational impact of any proposed changes and make plans to manage the associated risks, they are correctly positioned to adopt new business models and make the right moves at the right time to maintain or advance their market position.

* Nabil Abu el Ata is the author of *Solving The Dynamic Complexity Dilemma, The Tyranny Of Uncertainty* and *Leading From Under The Sword Of Damocles*. Over the past two decades, he has worked with global leaders in financial, telecommunications, retail, entertainment, services and government to mature the science of risk-management.