Far from reducing complexity, the leaders of the digital economy absorb it, test it and change quickly.

A common problem facing many senior managers and executives today in increasingly software-dominated organisations is reconciling a long-term planned strategic vision with the need to deliver value to a customer quickly and adapting to changing circumstances. Popular software development approaches found under the umbrella of Agile can generate near real-time data about bottlenecks and waste in the delivery pipeline. Agile approaches also offer rapid feedback on the fitness of the strategy itself. In the right hands, this data can be used to incrementally and quickly tune the delivery pipeline as well as to refine strategy.

Unfortunately, many senior managers and executives still find engaging with such data overwhelming and struggle to make sense out it. Some don’t even see what is in front of them as data.

Many senior managers and executives engage with software-dependent strategic initiatives through layers of intermediaries who present filtered, subjective interpretations of what is happening on the ground. In such an approach, people strive to reduce the complexity through abstracting and simplifying information. Reducing complexity only works if the abstractions and simplifications accurately depict reality. Too often, they do not. In many cases, these simplifications are more about mirroring the desires of senior managers and executives than accurately representing the situation at hand.

Software-dependent strategic initiatives are particularly vulnerable to managers imposing an unconscious or semi-conscious pressure on those they surround themselves with to subscribe to a belief in the certainty of an outcome – rigidly following a planned outcome vs. looking at strategy as a hypothesis. Inevitably, this “imposition of certainty” determines what data is included or excluded and how the included data is interpreted. For software-dependent strategic initiatives, the imposition of certainty can lead to the suppression of bad news and the development of a totalitarian-like culture that encourages the propagation of positive messaging. While positive messaging may offer managers a sense of comfort and competence, the reality of delivery (or more appropriately, non-delivery) eventually will bite.

Practices found in Agile and Lean Start-up methodologies can provide an antidote to such behaviour; however, they are not a panacea. The data generated through Agile and Lean Start-up practices can quickly highlight where an organisation is ineffective in delivery and where a strategy is off-target. But these practices do not facilitate the organisational change needed to remedy those issues. That is a leadership challenge.
**Incremental implementation**

In some companies that are relatively advanced in their Agile methods, I am seeing a shift in the way executives and senior managers are engaging with strategy. This is particularly true in companies that have implemented what is known as a "continuous delivery pipeline". A continuous delivery pipeline is an automated testing and environment building capability that allows code changes to be moved from a developer’s environment into a production environment with relative ease. As code changes are brought closer to the production environment, they are put through a more rigorous suite of automated tests. In companies that have implemented a continuous delivery pipeline, small increments of functionality are being released into production environments multiple times per day – i.e. small increments of value are delivered quickly to customers or small “safe-to-fail experiments” are put into customers' hands to test hypotheses.

In these companies, the multi-year planned strategy, often encumbered with strict change control and governance processes, is giving way to an incremental hypothesis-oriented approach for realising a strategic aspiration. Budget allocation is more incremental, doled out in smaller portions over time as more evidence, through data, helps support or disprove early assumptions. In this regard, these companies are becoming more like what is seen in the start-up ecosystem, where executives are acting as venture capital investors and the various projects or programmes are the start-ups; investment increases as a business idea is validated.

My perception is that in these companies discussions about strategy and value are becoming more refined. Similar to start-ups, a more lean way of thinking infuses the conversation. Executives who understand how to work in this manner find they receive data that allows them to act as an informed decision maker vs. a somewhat passive senior manager who is helplessly vulnerable to the next surprise announcement at a steering committee. The silos that previously existed within these more Agile companies are giving way to more cross-functional collaborative ways of working. While the term DevOps is the most common title for this model of working, some organisations prefer BizDevOps to emphasise the need to integrate what were once separate departments.

As INSEAD Emeritus Professor Manfred Kets de Vries highlights, a different form of leadership is “evolving” in the digital age. The alpha male with his autocratic approach to leadership is no longer serving companies. My perception is that executives and senior managers capable of working more directly with data generated through feedback are not as prone to surround themselves with intermediaries who mirror back to them only the messages they want to hear. Instead, these executives and senior managers recognise reality on the ground is what it is and must be dealt with accordingly.

The late economist Max Boisot felt that many of the models we use to simplify complexity were fragile scaffolding that often collapsed as new data emerged. In an economy built more and more on knowledge rather than physical assets, Boisot proposed that a safer orientation for companies to operate from was a position where information is regarded as more concrete, less abstract and to a certain extent more ephemeral – at any moment new data might disprove a set of assumptions. Boisot described this as moving away from reducing complexity in favour of absorbing complexity.

Boisot felt that a fundamental premise underlying bureaucracies was a belief that knowledge is something that can be simplified, and then easily transferred between parties – an orientation towards reducing complexity. It is my belief that this mindset is proving to be the wrong model to use for the effective realisation of software-dependent strategy within a business context.

Boisot recognised that shifting the way companies worked with knowledge presented significant cultural and organisational challenges. He felt that the ability to make the shift from reducing to absorbing complexity would be one of the key determining factors about which companies survive the transition to a knowledge economy and which would become the dinosaurs of a former era.

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