Five Myths About Digital Transformation

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[OPINION]

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If you want to lead your organization's technology transition, the first step is grasping the realities of digital transformations — rather than getting seduced by the hype.

BY STEPHEN J. ANDRIOLE

Many boards of directors and senior management teams aspire to the efficiencies, innovation, and competitiveness that digital transformation might deliver. But in my experience, the path to transformation — like most major corporate initiatives — is a risky one.

I have spent much of my career overseeing and participating in digital transformations in both government and private sector settings. Specifically, I have served as the director of the Cybernetics Technology Office of the U.S. Defense Advanced Research Projects Agency (DARPA); as CTO and senior VP of Safeguard Scientifics Inc.; and as CTO and senior vice president for technology strategy at Cigna Corp. And I have observed that in the vast majority of cases, organizations will make significant mistakes — unless the transformation is well-planned, exquisitely executed, and enthusiastically sponsored by upper management.

Villanova University — where I now teach and direct research about digital transformation and emerging technologies — collects data about technology adoption and digital transformation trends. I'm constantly hearing about the "amazing," "fabulous," "terrific," and "incredible" projects under way with the potential to "revolutionize" companies and "disrupt" whole industries. But when I probe survey respondents for key details about their initiatives, I often find that there is still confusion about the process. To replace this confusion with some clarity, I have distilled my observations and experiences into five myths about digital transformation — each of which has a corresponding reality. If you understand these myths, you'll be less likely to fall prey to the hype about digital transformation and be more aware of how arduous the process really is.

MYTH #1: Every company should digitally transform.
REALITY: Not every company, process, or business model requires digital transformation.
Digital transformation is not a software upgrade or a supply chain improvement project. It's a planned digital shock to what may be a reasonably functioning system. For example, to launch a digital transformation of business processes, it's necessary to purposefully model those processes with tools that enable creative, empirical simulations. Think, for example, of the software programs that enable business process modeling and business simulations.

So, as a first step to digitally transforming your processes, you need to honestly assess if your company can create digital models that simulate the nuances inherent in its procedures. Simply put, the question is this: Can my company model its existing processes? Many companies cannot. That's no crime. But that means, in all likelihood, that you cannot easily digitally transform all of those processes.

Remember, too, that the impact of any initiative is ultimately defined by market share, revenue, and profit. That means that some companies — even if they *can* model

their nuanced processes — may still not be able to make a convincing business case for digitally transforming them. (In other words, just because it's *possible* doesn't mean it's going to be *profitable*.) What's more, you should keep in mind that your existing business rules, processes, models, and systems may be working just fine, so efforts to digitally transform them may not make sense, given the costs and time required of the effort.

Of course, over time, the efficiency of your rules, processes, models, and systems may diminish; when that happens, your company's need for digital transformation could grow. But you don't have to effect digital transformation just for transformation's sake; you should be able to make the business case, and you should be able to say, with certainty, that the transformation will successfully streamline some key processes.

MYTH #2: Digital transformation leverages emerging or disruptive technologies.

REALITY: Most short-term transformational impact comes from "conventional" operational and strategic technology — not from emerging or so-called "disruptive" technology.

Most transformational leverage comes from tried-and-true operational technology (for example, networking and databases) and strategic technology (such as enterprise resource planning or customer relationship management software). It rarely, in my experience, comes from emerging technology (such as augmented reality) or disruptive technology (such as machine learning).

Why is that? Many business processes and models are outdated. For example, consider the manner in which Uber Technologies Inc. and Airbnb Inc. have, by degrees, supplanted taxis and hotels respectively. While emerging

Five Myths About Digital Transformation
(Continued from page 21)

technologies have abetted Uber and Airbnb's rises to prominence, their most significant gains have come from leveraging the mainstream networking technologies already in consumers' hands: mobile phones, apps, and websites optimized for quick transactions and location tracking. It's often easier to achieve impact with technologies already in widespread use than it is with emerging technologies.

As obvious as that point may seem, many leaders ignore it. They think they have to be positioned to pounce on the next wave of emerging technology, when that next wave is often difficult to predict and is, by definition, not yet conventional enough to produce a major impact.

MYTH #3: Profitable companies are the most likely to launch successful digital transformation projects.
REALITY: If things are going *well* — defined crassly as employee and shareholder wealth creation — then the chances of transforming anything meaningful are quite low.
Failing companies are much more motivated to transform themselves, simply because they need to change something — if not everything — quickly. Successful companies, especially if they're public companies, are understandably cautious about change. Think about it: How many successful companies — without market duress — have truly transformed their business models? Change is expensive, time-consuming, inexact, and painful. It also makes the leaders who suggest it easy targets for in-house politics, especially when the change initiatives move slowly or stumble.

And despite what the best-selling business authors, pundits, and huge-fee-collecting lunchtime speakers will tell you, the truth is, most human beings are resistant to digital change when it happens in the organization where they've grown comfortable. That means that transformation efforts are often constrained. Yes, resistance to change can disappear quickly when a company begins to fail. But until that day arrives, it's difficult to tell everyone to fix what's perceived as unbroken.

Where is there the least resistance to digital transformation efforts? At companies hemorrhaging customers and cash, and at startups with investor cash to burn. That's because digital transformations work well when you have money to spend and a high capacity — and rationale — for taking risks. By contrast, established companies are "established" for a reason: They've reached consistent levels of profitable revenue generation, driven by well-understood processes that make up an ongoing business model. They are therefore typically unwilling to upend those processes as long as they continue winning in the marketplace.

MYTH #4: We need to disrupt our industry before someone else does.
REALITY: Disruptive transformation seldom begins with market leaders whose business models have defined their industry categories for years.
While market leaders pay lip service to their role as innovators and disruptors, they are usually unlikely champions of change — until their profits begin to fall and their shareholders scream for transformation.

Historically, industry disruptors have often been startups making bold bets on old industries. Examples include Airbnb (hospitality), Uber and Lyft (transportation), Amazon (books, retail), and Netflix (entertainment).

Does this mean there's no possibility for industry leaders to disrupt themselves? No. But let history serve as a helpful reminder: Disruption seldom comes from established companies with consistent, profitable revenue streams.

MYTH #5: Executives are hungry for digital transformation.
REALITY: The number of executives who really want to transform their companies is relatively small, especially in public companies.
Digital transformation requires strong support from upper management. And while the *concept* of digital transformation can be sold up the management chain, simply selling the concept isn't enough. Transformations require overt, continuous support from the senior management team to succeed.

And it's this sort of support — public, persistent, enduring, and unwavering — that's more difficult to secure than one might assume. Many executives are suspicious of risky change efforts that might affect their status in the company. Many executives are also challenged by the sheer complexity of digital transformation projects, especially when they learn how long they take. Moreover, as we've already discussed, executives are reluctant to tweak existing business models that are consistently generating wealth for themselves and their shareholders.

In short, there's a wide gap between what executives say about digital transformation and what they do. It would be nice to think that executives are primarily motivated by what's best for the long-term health of the company, but their motives are often more complex.

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