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Digital Transformation

Why It's Safe To Bet That Most Companies Will Not Benefit From AI Investments

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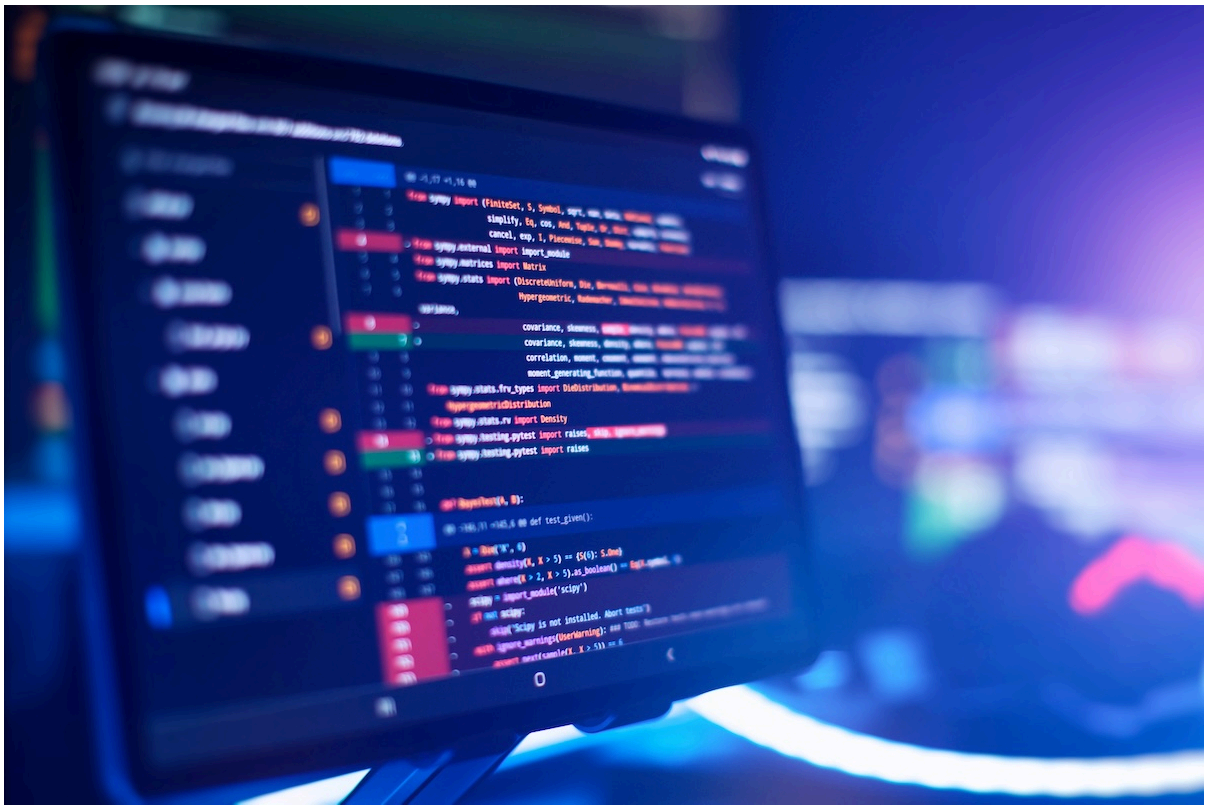

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Senior business executives need to radically shift their approach to technology.

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Guess the year when this happened? An organization is reporting an unsuccessful IT system development project, writing off millions of dollars.[1] The reasons cited for this failed investment? Lack of experience with projects of this scale and scope, no single primary owner, an overreliance on external supplier resources, unrealistic business case and timelines, lack of appropriate resource allocation, no "adequate culture … of change management … to ensure that new ways of working and greatly enhanced standardization of procedures could be introduced under a streamlined, more automated system", significant scope change, organizational leadership lacking "adequate expertise to critically question and assess the issues arising in the project and make fully informed decisions at critical junctures where the project evolved," were just some of the causes.

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We're quoting from a 2025 external review of an investment made by the Irish Arts Council, the government agency for funding, developing and promoting the arts in Ireland. But this could have been from a failure analysis of any number of IT investments from the 1980s, 90s or the 2000s. Or, in fact, from any time since we introduced IT into organizations!

For anyone involved in IT, these cited reasons will not be surprising. Indeed, they (along with others) are eerily similar to those reported for the majority of failed IT investments down through the decades.[2] The reality is that the history of technology investments is littered with failure and underachievement. A recent IBM study finds this to be true for AI spend, too. Data they collected this year from 2,000 CEOs found that "only 25% of AI initiatives have delivered expected ROI over the last few years, and only 16% have scaled enterprise-wide."[3] Similar dismal statistics are reported elsewhere.[4] Unless there are radical shifts in how senior business executives approach technology, we do not see this figure increasing in any significant way.

The Self-Perpetuating Cycle of Digital Investment Failure

So, it is not that we don't know what needs to be done for digital investments to be set up and managed for success. However, this know-how does not find its way to the executives making decisions regarding technology investments. It's as if they do not want to learn from both success and failure.

The key reason for this situation where history seems to repeat itself again and again lies in executive's basic belief system about digital investments and their role therein. This leads to them having a frame of reference that is fundamentally flawed, yet it shapes their decision-making and their assessment of their outcomes. It is not that they set out with the intention for digital to fail, but their actions lead to a cycle of disappointments, frustration, and ultimately wasting money.

The Basic Belief System About Digital: This Is Someone Else's Job

What is this basic belief system? During a hearing before the Irish parliament in May 2025 to interrogate the debacle at the Arts Council, its chairperson expressed the view: "I believe that the expectation of … State bodies …to carry the burden of a growing capability and competency requirement such as ICT [Information and Communications Technology], is in need of questioning."[5] To paraphrase, as governments increasingly digitize their services and automate their operations, she believes that accountability for successfully rolling out supporting IT systems can't reside with the leadership team of the relevant government department. But while this might seem an extraordinary statement to make based on what we know about the critical importance of executive leadership for success with technology, she was only expressing a widely held belief among business leaders regarding their role when it comes to technology: you cannot expect non-technology executives to have the capability to make IT-related decisions or to be held accountable for IT initiatives.

Yet, business leaders would never question their competence to make budgetary decisions, or recruitment decisions, and they definitely wouldn't defer those decisions to their finance or HR departments. But somehow with IT, it's different. Some executives seem to view it as a badge of honor not to be involved too deeply with IT. Other executives get scared by anything to do with IT, just like some students are terrified the moment they see a mathematical equation.

The very fact that we call them "IT" projects is often a subtle signal: this is IT's job, not mine. To be fair, the Irish Arts Council labelled their initiative a "Business Transformation Program." However, we have witnessed many situations where initiatives begin life as a business transformation program but after a very short time morph into an IT project, sometimes even taking on the name of the vendor of the core software being used – "the SAP project" or "the Salesforce project." And why would business leaders be concerned with an IT project or the deployment of a new AI tool?

Thus, the knee-jerk reaction is to delegate all decisions regarding digital to technical people, the CIO and his or her team, or even hiring a chief data officer (for data), chief digital officer (CDO) (for digital), or Chief Analytics Officer (for analytics)—or how about hiring a Chief AI Officer to drive AI?[6] This, despite research revealing that this "alphabet soup" of tech leadership roles causes considerable confusion among their colleagues as to what exactly incumbents in these roles do.[7] Studies also suggest that having multiple top-level technology leaders of companies negatively impacts role clarity, workplace climate, and technology performance and output.[8]

But many decisions concerning IT are not *technical* decisions; rather, they are *managerial* deliberations and choices that cannot be delegated to an IT department. Abdicating them to your digital people is a cop-out and will put the focus on technology instead of on, say, changing how your employees are going to work with an AI copilot. After all, you're not introducing technology per se, you are changing how your staff engage with customers, manage accounts payable, do production planning, or whatever else it is that will deliver the expected performance outcome. Your tech staff cannot change how employees in the organization should sell in a different way. When they do attempt to, despite their best of intentions, we know it's inevitably not going to be successful.

Business leaders' hands-off approach to all things digital is a significant problem. At the very least, they need to be able to challenge proposed digital transformation initiatives, cloud migration plans, or AI investments. How exactly is this investment in a new AI system going to increase productivity? What data is the model trained on? How will employees be motivated to adopt new ways of working? What actions need to be taken to achieve the expected benefits?

One of us worked with a company where the CIO reported into the finance function. The chief financial officer (CFO) did not involve him too much in strategic matters, essentially reducing the CIO to an order-taker. To improve efficiency, the CIO worked to build an integrated suite of technology applications, knitting all the company's diverse business units' systems together as best he could. However, the CFO did not consider that this would cause issues for the board's decision to divest one of the company's businesses, and a potential acquirer eventually pulled out of a deal due to the cost and complexity of carving out the now-integrated IT systems.[9]

Because of the basic belief that IT is someone else's job, business leaders don't see the need to get involved deeply in IT-related decisions. When digital investments fail, that very belief system upholds the notion that business managers cannot be held accountable for the failure. Because IT is not their job, right? The conviction that the blame for digital investments not meeting expectations resides with IT prohibits a learning loop. This perpetual cycle helps explain why we continue to see so many digital investment failures.

Reinforcing the Belief System: Digital Is Abstract and Ambiguous

Even if business leaders wanted to engage more deeply with IT issues, the cards are stacked against them. One immediate challenge they encounter is with language and vocabulary. While accounting isn't always intuitive for the uninitiated, at least there are standards like Generally Accepted Accounting Principles (GAAP) and the International Financial Reporting Standards (IFRS) that ensure that there are agreed-upon definitions of key concepts and common approaches for tasks like revenue recognition and depreciation. In IT, we don't have such standards or guidance. Ask any number of people what a platform is, a term that is widely used today, and you will likely have as many different definitions as the number of people you ask. At times, IT can seem a bit like the wild west!

Executives can also rely on balance sheets, profit and loss accounts, and cash flow statements to assess the state of a company's financial health. Their content and construction are defined by global standards. But how do we assess the performance of a company's technology? There are no equivalent mechanisms.

The consequence is that every organization will have its own approach. For reporting on IT projects, what we usually find is that most resort to a vague "red, amber, green" traffic light system regarding "on time, within budget, to spec." More worrying, the overall status of IT at the company or the extent of its technical debt is nearly never reported on. In contrast, all executives will likely be well aware of their company's financial debt position.

Add to that the fact that IT investments are very abstract and amorphous. When a manufacturing firm looks to build a new factory, architects produce drawings of the proposed building and floor layouts, miniature mockups, and perhaps even a 3D walkthrough to help give a good sense of what it is going to look like when complete. As the building project advances, you can visit the site to see the progress that is being made.

With an IT system to improve warehousing logistics or customer engagement, for example, this is more difficult. What does such a system "look like"? If the associated project is reported as being half-complete, how is this assessed or confirmed? With technology, there is little to see beyond perhaps devices and cables.

It's been more than two decades ago that software engineers came up with the Agile manifesto[10] to emphasize iterative, incremental application development. But what business leaders still get to see more often than not is still a complex diagram of boxes and arrows: So, now that you've seen the "software architecture," are you going to invest that 200 million dollars?

All of that makes it unnecessarily hard for any non-techie to assess an IT investment proposal and reinforces the basic belief that this must be someone's job who is an expert in all things digital.

Breaking the Cycle

Business leaders need to break the notion of "it's OK for business leaders to not have IT knowledge." In today's data-driven world, every leader is a digital leader of some sort. Even if you do not have a "data," "information," "digital," or "technology" label in your job title.

But there is a Catch-22: business leaders need to recognize that their organization has a problem with tech, and that they are the problem! Once you challenge the notion of "this is not my job", the best way to help your organization as a business leader is to champion digital *business* leadership—by starting with yourself and by empowering others:

1. **Let your next training not be another leadership workshop or team-building course.** Let it be an IT program. While it is known what makes digital investments succeed and fail, this is not known by everybody. After all, business leaders don't know what they don't know: if you were wondering what we meant with "technical debt" above, you're not alone. For AI, a Gartner survey published in May 2025 reported that, depending on their role, only 7% (for the Chief HR Officer) to 24% (Chief Strategy Officer) of executive team members are viewed as "AI savvy" by their CEOs.[11]

   To learn how to drive a car, you go to driving school. To run a company in the digital age, you should need to pass a driving school for IT. And it's a *driving* school curriculum, not a class covering the mechanics of your car's engine. So, no need to turn yourself into a coder.

   What about executive education classes that discuss case studies of what went wrong with some of the "18 famous ERP disasters, dustups, and disappointments," recently profiled by CIO magazine?[12] This list includes organizations from the public sector, food and beverages, medical devices, vehicle management, infrastructure manufacturing, cosmetics, and retail. And even if you are already digital savvy, you can lead by example. One board member, even though an expert in the topic himself, sat through multiple cohorts of an entire executive education training program on digital transformation to signal to all his colleagues: this is important to me, so it should be worth your time, too.

   And before you ask: as professors, we do acknowledge the responsibility of business schools to include more managerial courses on IT within the core curricula or post-experience programs. So, if you are a business school dean, we assume you know which faculty member to call after reading this article. You'd be doing companies' digital transformation and AI programs a huge favor.

   And, yes, it is embarrassing that as a profession, IT hasn't been able to come up with sufficiently adopted standards: at the very least, we need to demystify terminology around digital technology. But we simply can't wait for that. Cynically, we might argue that it is in the interests of the technology and software vendors for this situation to

persist. It has been suggested that IT is perhaps the first industrial plague thriving inside organizations, gorging itself on their wealth[13] Nothing generates sales like stoking fear and generating FOMO (the Fear Of Missing Out).

2. **Develop and promote your IT and digital leaders.** Having the CIO job label is often seen as standing for "Career Is Over" and CDO for "Career is Definitely Over." Make it "Career in Overdrive" and "Career-Defining Opportunity" instead! Having served in technical/digital roles should be a stepping stone for general managers.

   Take Pablo Ciano, now a Member of the Board of Management for eCommerce at DHL Group. He switched from his Chief of Staff role to become CIO before becoming the CEO of Central and South America.[14] Air New Zealand has recently appointed its CDO Nikhil Ravishankar as the company's next Chief Executive Officer.[15] Recently retired CEO of DBS Bank Piyush Gupta, who led the bank for 16 years and drove what has been acknowledged as the most significant digital transformation of any global bank, took time out from his banking career to start a dot.com company. As an interviewer noted, "Every bank talks about tech and digital disruption, but with DBS the most energetic person on the subject is the chief executive and the zest flows all the way down through the bank."[16] Where data and digital are now part of the fabric of all organizations, make an IT role part of your career path.

But why should business leaders be motivated to follow any of the above? For a start, in the absence of many executives not engaging with tech in any meaningful way, legislation and regulation are now forcing them to step up to the plate and improve their digital literacy. Article 4 of the European Union's AI Act mandates training for all executives on AI literacy.[17] But why limit to AI? What about technologies like the Internet of Things (IoT)? Blockchain? Digital Twin? Cloud computing? We need to mandate IT literacy for every business leader; just like you'd want them to understand your company's balance sheet.

Thanks to the Digital Operational Resilience Act (DORA), since early 2025, financial institutions must take measures to ensure they "can withstand, respond to, and recover from Information and Communication Technology disruptions, such as cyberattacks or system failures."[18] Accountability for this falls on the leadership team and board, not some IT manager. While DORA applies to financial services organizations, resilience should be a concern for executives from every industry.

Company leaders should really be mandating and implementing all this in their organizations *before* it becomes a legal or regulatory requirement. You still have time to create a competitive advantage through developing executives able and willing to make managerial IT decisions—before it becomes a competitive necessity. As a July 2025 McKinsey report[19] states: "With greater technical knowledge, business leaders can prioritize rewiring their organizations—deeply integrating technology across all core processes—to gain competitive advantage."

We know that the majority of organizations plan to increase their investments in AI over the next three years.[20] It's a pretty safe bet that most of these investments will suffer similar fates as the one by the Irish Arts Council we mentioned in the beginning—unless we can break this cycle by challenging executives' fundamental belief that digital is someone else's job.

Whoever said "insanity is doing the same thing over and over again and expecting different results" may not have had digital or AI investments in mind—but it is very apt.

References

1. "**Statement by Minister O'Donovan on Arts Council 2023 Annual Report & Financial Statements**." Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media.
   See for example, Joe Peppard and R.M. Bastien, "**The hidden causes of digital investment failures**." *MIS Quarterly Executive*, 23/2 (Article 2 2024); Mary K. Pratt, '**Why IT projects still fail**.' *CIO*, October 16, 2023 [Why IT projects still fail CIO](https://www.cio.com/article/230427/why-it-projects-still-fail.html); Gwil Davies and Robert Di Pietro, "10 reasons why large-scale IT projects fail," PwC Australia, August 24, 2022.
2.
3. ***"5 Mindshifts to Supercharge Business Growth."*** 32nd edition of the IBM Institute for Business Value (IBM IBV) C-suite Study series, May 2025.

4. For example, McKinsey reports that on15% of organizations have successfully scaled machine learning automation across multiple parts of the business. See **Rohit Panikkar**, **Tamin Saleh**, Maxime Szybowski, and Rob Whiteman, "**Operationalizing machine learning in processes**." McKinsey & Company, September 2021.
5. **Committee of Public Accounts Debate** - Thursday, 29 May 2025.
6. Mike Wade, Anja Lagodny, Ann-Christin Andersen, Corinne Avelines, and Achim Plueckebaum, "**Do You Really Need a Chief AI Officer?**" *MIT Sloan Management Review*, August 7, 2024.
7. Tom Davenport, Randy Bean and Richard Wang. "***CDO Agenda 2024, Navigating Data and Generative AI Frontiers***." AWS, 2024.
8. Janet Sherlock, *The Organizational Impacts of Executive Technology Leadership Role Proliferation*, Unpublished Ed.D, University of Southern California, 2023.
9. For some research on what we know about this issue, see Rajive Wickramasinghe, Anthony M. Leraris, Niteen Bhagat, Shalabh Kumar Singh, and Jai Bagmar, "**Why IT matters: The art of successful carve-outs**." *California Management Review Insights*, May 2, 2025; and Philip W Yetton, Stefan Henningsson, Markus Böhm, Jan Marco Leimeister, and Helmut Krcmar, "**How IT carve-out project complexity influences divestor performance in M&As.**" *European Journal of Information Systems*, 32/6 (2022): 962-988.
10. Kent Beck, Mike Beedle, Arie van Bennekum, Alistair Cockburn, Ward Cunningham, Martin Fowler, James Grenning, Jim Highsmith, Andrew Hunt, Ron Jeffries, Jon Kern, Brian Marick, Robert C. Martin, Steve Mellor, Ken Schwaber, Jeff Sutherland, and Dave Thomas, "***Manifesto for Agile Software Development.***" 2001.
11. *Gartner Survey Reveals That CEOs Believe Their Executive Teams Lack AI Savviness*, Gartner, May 6, 2025, **https://www.gartner.com/en/newsroom/press-releases/2025-05-06-gartner-survey-reveals-that-ceos-believe-their-executive-teams-lack-ai-savviness**
12. Grant Gross, Josh Fruhlinger, Peter Sayer, and Thomas Wailgum, "18 famous ERP disasters, dustups, and disappointments," *CIO.com*, July 3, 2025, **https://www.cio.com/article/278677/enterprise-resource-planning-10-famous-erp-disasters-dustups-and-disappointments.html**
13. Chris Tiernan and Joe Peppard, "**Information technology: of value or a vulture?**" *European Management Journal*, 22/6 (2004): 609-623.
14. DHL Group, '**Pablo Ciano.**' Profile.

15. **Air New Zealand appoints Nikhil Ravishankar as next Chief Executive Officer - Media releases**
16. Chris Wright, "**Awards for Excellence 2019: How Gupta turned DBS into the bank of the future**." *Euromoney*, July 10, 2019.
17. European Commission, "**AI Literacy – Questions & Answers, Definitions of article 4 and the AI Act**." last requested on Aug 12, 2025.
18. European Insurance and Occupational Pensions Authority, "**Digital Operational Resilience Act (DORA)**." last requested on Aug 12, 2025.
19. Brooke Weddle, Bryan Hancock, Heather Stefanski, and Maisha Glover, "**We're all techies now: Digital skill building for the future**." McKinsey & Company, July 2025.
20. Hannah Mayer, Lareina Yee, Michael Chui, and Roger Roberts, "**Superagency in the workplace: Empowering people to unlock AI's full potential.**" McKinsey & Company, January 28, 2025.

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