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Adopting a Digital Mindset

By Chris Kosty

While changing market conditions, human capital retention issues, and financial constraints are challenging for contractors, they also provide opportunities for competitive advantages if handled effectively.

Companies that continue to innovate and adapt to changing environments position themselves for long-term sustainability, success, and growth. Contractors can distinguish themselves in this way through the enhanced use of technology.

This article discusses the importance of aligning people, processes, and technology to achieve successful digital initiatives.

PREPARING FOR DIGITAL TRANSFORMATION

A common misconception is that technology can – and will – fix any business process issues. The reality is that technology, when implemented over poor or broken processes, can exacerbate these issues. Technology should be used to *enhance* optimized processes, as opposed to implementing technology that requires a process to conform to it.

By first going through the exercise of aligning people, processes, and technology to explicitly stated business objectives, companies can expect better results from their technology implementations, avoid common pitfalls, and have a greater probability in realizing the full benefits of their digital initiatives. Furthermore, these steps aid in user acceptance and confidence, while developing a culture of change and new perspectives.

The necessary foundational steps to put you on the right path include thinking critically about the problem you are trying to solve, how technology plays a role in that solution, and the value to be derived from solving that problem to facilitate successful change and cultivate a culture of innovation.

DIGITAL STRATEGY

The technology landscape is vast and can be quite overwhelming. There are a significant number of solutions available, with new ones constantly hitting the market that are more impressive than the last. The sheer volume of software alone makes it difficult to identify and select the right technology solution for *your company*.

If there is no business case supporting these digital initiatives, then they will fail before they even start. Companies that ask about a technology solution's features and functions before reflecting internally on the business purpose and corresponding impact on people and processes are setting themselves up for a costly, inefficient, and overall painful implementation from the start.

Have you ever left a software demo thinking that the tool was going to change your company forever, only to realize that it doesn't do what you thought it would once implemented? Have you ever been part of an implementation that stretches months past the deadline and gets shelved before it goes live? Or, have you purchased new software that gets rolled out with grand pomp and circumstance, only for it to go unused past the training class?

Largely, these failures are not solely the fault of the technology itself and, in fact, may not be the fault of the software at all.

A frequently missed step by most companies, and a costly omission, is the lack of clarity surrounding the purpose and intended impact of the solution being evaluated. Companies don't always need the best piece of technology available in the market – they need the *correct* piece of technology to help achieve their particular goal or objective. Understanding, defining, and aligning these needs are the starting point to developing a foundational digital strategy.

A *digital strategy* refers to a company's plan for leveraging digital technologies in order to achieve specific strategic goals and objectives. Critically thinking through those strategic goals and objectives should come first and is key in having a clear and focused digital strategy.

Simply stated, the first question that companies need to be considering is “Why are we planning to innovate?” While the answer may not be straightforward for everyone, the purpose behind most digital strategies can typically be categorized into one of the following four strategic goals:

New Business

Technology can help with growth by enabling new business lines or revenue streams to develop and flourish. Simply put, technology can allow companies to do something new.

Consider the data captured during a job's life cycle. Companies using tools such as data warehousing, data analytics, and artificial intelligence (AI) can mine this data to extract insights that will not only help them with their own

internal operations, but may also be used to provide insights on construction trends, cost projections, and project performance metrics that could be sold within the marketplace, thus creating a new source of revenue.

Internal Stakeholder Impact

Improving the employee experience enhances satisfaction, aids retention, and creates opportunities. People want to have a positive experience during their workday, feel empowered, and know they have the right tools to do their job as efficiently and effectively as possible.

Technology can help by removing the most manual, tedious, and time-consuming tasks from your company's processes through automation. But the quantitative impact is getting the actual

Technology Classes

Aside from enterprise solutions, the following are common technology classes encountered in the industry today:

Data Analytics & Business Intelligence

Data analytics and business intelligence tools allow companies to leverage data to make data-driven business decisions with confidence and clarity. These insights can have a profound impact in a variety of areas of any business and can be foundational in driving strategic planning.

At this point, all companies within the construction industry should have an analytics strategy either in the works or already in place.

Robotic Process Automation & Intelligent Automation

Robotic process automation (RPA), or “bots,” use software to automate repetitive, rules-based tasks. Once developed, a bot simulates how a human interacts with a computer to perform tasks. They have 24/7/365 capacity, can improve efficiency and effectiveness of tasks, mitigate risks associated with human error, and allow human capital resources to focus on value-added tasks.

Bots can also leverage artificial intelligence (AI) to handle difficult tasks. The combination of AI and RPA is often referred to as *intelligent automation*.

Data Warehousing

A data warehouse is a class of technology that involves collecting, storing, integrating, and managing data from a variety of disparate systems in one centralized location. Often, a data warehouse is a recommended foundational component to any successful analytics or business intelligence endeavor.

Data warehouses help enhance decision-making, improve the capabilities and efficiency of reporting, and promote having consistent data policies throughout an organization (i.e., governance, integrity, and security). An oversimplified and common example is if you are constantly going into multiple systems, exporting data from said systems, and manually pulling together a custom report in a side spreadsheet, then a data warehouse may be useful for you to support and automate those efforts.

Integration & Workflow Tools

While technically separate categories, these tools are often used together and are designed to connect different applications, systems, and processes within a company to streamline operations, improve efficiency, and enhance collaboration. Integration tools enable the flow of information and actions between various components throughout a business process.

Common workflow tools include business process management systems, task and project management tools, approval and review workflows, and document and content management workflows. Accounts payable automation is a hot topic with this class of tools supporting those efforts.

Artificial Intelligence & Machine Learning

These technologies leverage algorithms to perform complex tasks that require logic typically associated with human intelligence. While you may hear about them often, these solutions are only starting to become more mainstream.

It's of utmost importance to note that if you have goals to leverage AI and machine learning in the future, then start working on your data integrity, storage, and governance immediately. These tools require high-quality data to produce reliable results (the ultimate case study in “garbage in, garbage out”).

time back each day to focus on other value-added tasks, thus expanding your workforce's capacity.

External Stakeholder Impact

Think about all the interactions your company has with project owners, GCs, subcontractors, banks, bonding companies, lawyers, vendors, accountants, auditors, compliance officers, etc. It's likely that any inefficiency or business problem that is painful for your company internally has an equal or greater negative impact on an external party.

Technology provides the ability to proactively share clear, concise, and timely information with external partners due to the implementation of workflow tools, giving you a newfound visibility into your processes and access to your data.

Scalability

Technology can help to reduce costs, both in the interim and at scale, essentially allowing companies the opportunity to *do more with less*. While top-line growth is important, it's the enhanced profitability that makes the prospect of growth exciting and sustainable. Tools such as resource planning and scheduling software to optimize resource allocation, labor management, and equipment usage can help ensure that projects are executed timely while reducing downtime and affording the opportunity to take on more projects without straining resources.

Additionally, enhanced reporting and automated financial management may allow contractors to improve their jobs per project manager metric, allowing them to take on additional projects without having a corresponding increase to headcount.

As mentioned previously, the pace of change in the current business environment is rapid and keeping up requires companies to be adaptable. A company's digital strategy is not immune to these forces; it's okay to pivot, rework, and redefine your digital strategy over time. After all, it's meant to be a guiding principle, not a self-imposed regulation.

DIGITAL INITIATIVES

The tangible steps that must be taken to execute your digital strategy are

referred to as digital initiatives and, collectively, make up the plan to achieve the stated goals and objectives. For example, if the digital strategy were synonymous with a marathon, then the digital initiatives would represent each mile marker getting you to the finish line.

Technology is at the forefront of any digital strategy, representing the actual tools that enable companies to carry out the tasks needed to achieve the goals and objectives. At multiple points along your digital journey, technological implementations will occur.

While there are technologies across all cost ranges and complexities from which the construction industry can benefit, it's less important to hear about what these technologies do in general and more about how they address a specific need. The best way to keep this point at the forefront is to think about technologies in classes or categories, rather than by particularly named solutions. For common technology classes you may encounter, see the "Technology Classes" sidebar.

While it's important to understand the functionality that different classes of technology provide, it's equally important to consider that there are digital initiatives that require no new software or technology investments at all.

People, processes, and technologies all play an equal role in helping to carry out the digital strategy. Digital initiatives that focus on people and process are hypercritical and create an environment ready for innovation and technology. They ensure that the business processes in place are structured for leveraging technology to execute jobs efficiently and effectively. A few examples include:

- Realigning roles and responsibilities to create a more efficient workflow with less touches or transfers
- Evaluating the business purpose and need for each step within a particular process to trim off any excess, outdated steps
- Reimagining how a particular process should work in order to better leverage a piece of technology

Often, it's the people- or process-centric initiatives that require a bit more creativity or shifting perspective to think through change. Have you ever asked someone (or been asked yourself) about why a task is performed a certain way, only to hear that "it's the way it's always been done"? This is a great indicator of an opportunity for improvement.

Where innovation runs rampant within a company is getting employees to proactively ask about the why behind processes and feel empowered and supported in bringing thoughts, ideas, or even solutions forward. This particularly speaks to the importance of creating a culture of innovation and adopting a digital mindset.

A CULTURAL COMMITMENT TO INNOVATION

Adopting a digital mindset means to embrace attitudes, beliefs, and behaviors that prioritize leveraging digital technologies. It speaks to the necessary commitment to innovation and transformation required to gain competitive advantages, operate more efficiently and profitably, and develop a culture of forward-thinking problem solvers, rather than data-movers and button-pushers. It promotes agile thinking supported by research, ideation, and experimentation, with steps to arrive at impactful solutions quickly while problem-solving, collaborating, and embracing change along the way.

Executing a digital strategy effectively requires buy-in and collaboration at all levels. The commitment to these digital efforts within any company calls for that tone to be set at the top.

Executive leadership is responsible for creating the cultural commitment to ensure innovation is a core value that shapes how companies think, work, and interact. This leadership helps encourage, support, and reward the individuals responsible for carrying out the digital initiatives.

Additionally, the individual process owners are most intimately familiar with the day-to-day operations and directly feel the pains of any inefficiencies or technology gaps. This positions them uniquely on the front lines for identifying

improvement opportunities. Accordingly, it is critical that those team members feel empowered to proactively raise their hands without the fear of scrutiny and ask, "I wonder if we could do this a different way?"

CONCLUSION

Processes within the construction industry have largely looked and felt the same way for a long time. Change may be hard, but stagnation is fatal.

Fostering an environment where change is celebrated may seem like a monumental task. By embracing these concepts and developing a forward-thinking and innovative environment, the challenges associated with change will be quickly replaced by the excitement and encouragement about the opportunities this change creates.

Companies need to realize that the greatest returns on investment on their digital strategies are those that make a cultural commitment to innovation and digital transformation. **BP**



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