



Digitizing Construction: Managing Rapid Change

by Denis Branthonne

New technologies are causing swift changes in the building and construction sectors. With cloud and mobile technology, all on-site processes can be digitized, quickly and easily, with no need for paper forms. Information can be made available to an entire team in real time and stored on a secure server at all times.

These advances are exciting but they also trigger some important questions: How to get started? How can you effectively drive change through digitization? How will you measure success rates with these new systems? The following are some points to keep in mind as you make the shift into the digital age.



Agile Strategy

You will need a strategic vision, but more importantly, you need to get started; test out strategies, conduct some trials, learn from mistakes, so you can constantly refine and improve your approach. Keep in mind that shifts of this nature are almost never seamless, and a rocky start is not necessarily indicative of a fruitless process.

As a point of reference, in the last decade the software industry has moved gradually from a traditional approach -- defining full specifications, developing, testing and deploying -- to an "agile development" approach where one starts with simple functionalities and quickly makes changes based on user feedback and adoption. While the traditional approach seems more thorough, it can be so cumbersome and complex that it often translates into failures.

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Deploying digital solutions on construction sites is a bit similar: there are so many activities, processes, and parties involved on a site that it is almost impossible to precisely map out in advance what needs to be done. When first adopting an agile strategy, it is only when the first deployments are done and you collect user feedback that these priorities will become clearer. At that point, it is critical to learn and make changes quickly in order to fine-tune these processes. In fact, this never stops: as you digitize more processes, collect data, and run analytics, new ideas will emerge and you will be required to constantly calibrate your approach.

This is not to imply that you should forego having a strategic and holistic vision. I am suggesting that you should have a vision, quickly launch some initiatives, and be prepared to revisit and refine your strategy as you learn from those first deployments.



Getting Started: The Importance of Pilot Projects

As mentioned previously, validating your approach with a pilot project is crucial. Even if you want to adopt a new approach for an entire company, starting out and establishing success early on is critical, and this step cannot be avoided. It is extremely difficult to deploy new systems within a company that might have any number of projects going on at once. Such a company-wide shift would be both difficult and unreasonable, with too much at stake. Therefore, conducting a pilot project gives more control to the adjustment process, and can be the start of easing a company's shift to the digital realm.

Some key criteria in selecting a pilot project would be to start with something simple and carefully select the team in charge. A straightforward project with fewer variables means fewer unforeseen issues, and the focus can remain on successfully implementing a new system. Also, remember that before starting, it is important to define a timeline and determine how the success of the pilot will be measured.

Here are five questions to ask yourself before getting started on a pilot:

1. Have you clearly identified the **Processes** you want to digitize?
2. Have you clearly identified the **Parties** that will be involved? Are they informed?
3. Have you identified Key Users ("**Champions**") who will be helping to drive User Adoption?
4. What is the **Timeline** for the deployment?
5. How will **Success** be measured?

Clearly laying out these specifics will lead to a smoother implementation of digitized processes, along with a more straightforward assessment by the end of the project.



Driving Change: The Human Factor

You might be thinking that such rapid technological change would be met with resistance in construction, and it is. In my experience, there are usually three attitudes towards company changes, each of which constitutes about a third of any operation, which are: open-minded eagerness to try out new tools, indifference one way or the other, and active resistance.

I have also found, surprisingly, that age is not the determining factor regarding who is more successful in adapting to change. It is, in fact, all about one's mind-set; those with the right attitude have an easier time adjusting to such changes, regardless of age. Which is great, since unlike age, mind-sets can be changed.

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In fact, experienced individuals keen to embrace new technology are usually the most successful adopters: their understanding of processes, plus their ability to keep things simple, and their focus on results usually makes a big impact. Additionally, when experienced members are on board, the less senior staff members are more likely to follow suit.



Communicate & Train

As processes are digitized, the shift might be met with any mix of eagerness, indifference, or backlash from a team. One critical aspect in managing change (and mitigating resistance) is to have a clear communications plan, along with clarity regarding roles and responsibilities. Hands-on training is usually the best way to spread information and address concerns directly with a team.

Training sessions seek to:

- "Demystify" the usage of mobile devices, and **make users comfortable**
- Ensure that everyone has **access to the application**
- **Clarify who is doing what** in the application

Not only will users be more at ease with new technologies that are introduced, but it goes without saying that a trained employee will be more adept with new software as well. Time invested in training sessions is well worth the result of better communication and smoother integration on-site.



Keep it Simple as You Scale

As you start seeing success in digitizing processes, the final aspect to keep in mind is to keep things simple. The biggest danger to IT systems is to overcomplicate things, creating unmanageable systems over time. Defining the purposes of new tools and software at the outset can help keep their roles clear, and avoid confusion.

Overall, digitization can boost productivity in the construction sector, but results can vary depending on early strategies for adopting said processes. With the proper plan and attitude, the shift to digitize can be made more manageable.

Keep in mind the following methods that will help as your company makes the transition to digital: adopt an agile strategy, conduct pilot projects, hand-pick experienced individuals as early adopters, effectively communicate with hands-on training, and focus on straightforward goals from the outset.

About Denis Branthonne

Denis is the CEO and Founder of Novade, and believes in a hands-on approach to building projects. A business leader with a track record in building global teams, Denis grew up in France, obtained his Master of Science degree at MIT, and previously worked at Autodesk as VP of Emerging Markets & APAC. He remains a firm believer in the 'get it done' philosophy.