5 Habits for Highly Effective Digital Twins

Meet the digital twins! These lovable virtual offspring can be a great addition to any business family. They are the dynamic online models of physical objects that you hold dear. A digital twin stays up to date as the physical asset evolves by using data captured by sensors, cameras, drones, or other devices monitoring the asset. Via the digital twin, you can check and act on the physical asset remotely, try out what-if scenarios without risk, and predict trends, issues, and opportunities. The range of assets that can be digitally twinned is vast. Pumps, turbines, production lines, buildings, and construction sites are just a few examples.

First things first

Digital twins may sound cool, but they still need to provide value and meet relevant needs. Before finding out about good habits to get into, try asking the following questions to start your digital twin journey the right way.

What do you want from your digital twin?

Should it provide you with data analytics to help tune performance in production? Should it enable predictive maintenance to avoid unscheduled downtime in construction equipment? Do you want actions on your digital twin to make changes automatically in the physical asset? Which increase in project intelligence will be the most valuable? Considering possibilities like these will help you define the requirements for monitoring your asset and collecting and storing data from it to use in its digital twin.

What digital tools and environment will it need?

Many digital twins are 3D representations of assets, using computer-aided design (CAD), building information modeling **(BIM)**, or other software applications. Depending on the digital twin, data needs to be structured so that it can be efficiently ingested and processed. Additional tools such as statistical packages and machine learning/artificial intelligence may be advantageous for further actionable insights. **LoadSpring Cloud Platform** can help you do all this. Teams on site where the asset is located may also benefit from using augmented reality (AR) tools to see how changes are to be made, following recommendations generated from the digital twin. Make your shopping list accordingly! And keep a close eye on significant **business intelligence trends.**

How can you scale it?

Small digital twin projects with clear, quick business benefits can be a good way to start. You may want to add more sophisticated functionality afterward. You may also want to bring together projects for individual components to see a bigger picture. Digital twins should therefore be created with suitable scalability and compatibility in mind. This includes computing facilities and data storage that support them. For example, a **properly thought-out data lake** can facilitate digital twin creation and combination, as well as avoiding silos that can prevent digital twins from realizing their full potential.

5 key habits for your digital twins

Digital twins may sound cool, but they still need to provide value and meet relevant needs. Before finding out about good habits to get into, try asking the following questions to start your digital twin journey the right way.

1

Keep your digital roadmap current and flexible

Your strategic business goals are your priority. Initiatives like digital twins are simply a means of attaining them. Depending on your business activities and sector, you may be targeting gains in productivity, profitability, speed to market or delivery of projects, or sustainability. You may be facing challenges in hiring additional personnel, reducing risk, and enhancing safety. Digital twins may help with any of or all these items, assisting you in gains and letting you avoid issues.

However, circumstances can change rapidly. Digital twins and their digital environments may need to be modified to suit. While strategic goals may remain constant, your transformation **roadmap** for realizing them must be adaptable. Cloud-hosted applications for digital twins offer elasticity. They let you replace fixed capital expenditure (CapEx) with more flexible operational expenditure (OpEx).

2

Ensure your digital teams are properly staffed

Digital teams design and implement strategies to deploy digital resources like digital twins. Their specific skills and knowledge make sure that these virtual resources bring value to the rest of the enterprise reliably, securely, and with good performance.

A trusted external provider can help you build your digital teams. By leveraging quality know-how and experience from LoadSpring's managed cloud services, your enterprise can move up through levels of **cloud and digital maturity,** ensuring that resources are correctly deployed for digital twins. We can also stay with you once projects are up and running, assisting you in enhancing your project intelligence and continuing your digital transformation.

3

Optimize your ROI at all levels

Digital twins, like other digital projects, need a robust business case. Investments of people, time, and money need to be calculated and compared with the expected gains. A decision to build a digital twin will also depend on your organization's current digital maturity, culture, and other projects competing for the same resources.

By including digital twins in your program management and project management in the cloud, you will be better able to optimize total resource use and improve overall results. Digital twins for different activities may be able to leverage the same technology and share cloud resources, serving multiple projects faster and more cost-effectively.

4 Upgrade related functions as needed

You may also want to change how you work in other areas if digital twins are to give you the best return on investment. For example, agile and DevOps methods may be better for keeping a digital twin synced with real-life project requirements, including adding new features. Again, cloud adoption can be the solution. The dynamic nature of the cloud makes it easier and faster to try out different options and pick the one that is best suited to the digital twin and project concerned.

5 Leverage digital solutions throughout physical lifecycles

Digital twins can offer many advantages in the design, development, and delivery of projects. However, their greatest value both to you and your customers may be in the life of the project after delivery. Buildings are a good example. Their expected lifetime after construction may be measured in decades or more. During this time, the materials used to build them may alter or degrade. Their energy consumption or generation characteristics may change. Their purpose may even be modified, for example, by converting from industrial to business or residential use. When digital twins are designed to scale and evolve, they can continue to help optimize and provide value throughout the entire lifecycle of any asset.

CONCLUSION

Digital twins are there to add value. For added value, it is as important to develop the digital skills of your team as it is to deploy new technology. The right partner, relationships, and tools can be critical in achieving digital twin success. They can also help you accomplish digital transformation across your enterprise.

LoadSpring has extensive experience in helping enterprises and organizations get the best from digital resources. Our approach continues to build and improve on the success we have helped many multinational organizations to achieve. Our managed cloud services enable them to enhance their value to their own customers, improve their competitiveness, and increase their project ROI.

**Contact LoadSpring today for a
free cloud readiness assessment valued at $2,500.**