

What the Construction Industry Can Learn from Amazon, Uber and Google

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It's no secret that the digital transformation in construction is already underway. In fact, it's estimated that full-scale digitization in nonresidential construction could lead to annual cost savings of \$700 billion to \$1.2 trillion within the next 10 years.

Digital transformation is now a strategic imperative for those in construction as it already has been for other industries. The broader economy is full of examples of industries that have been transformed by so-called "disruptive" businesses. High-profile examples include Amazon for shopping, Uber for transportation, and Google for advertising. These advancements have changed the way business is done and can provide clues to what's possible for construction. The key features of these disruptive businesses that can also be applied to construction include:

- » **Integration.** By integrating and streamlining a number of traditionally distinct capacities in a supply chain into a single enterprise and business model, a new monetized service can emerge.
- » **Technology.** Data-driven technology provides a means to streamline cross-process operations, support the capacity to scale non-linearly and reduce the marginal costs of each additional customer or engagement.



- » **Data.** Data can be captured from large-scale repetition of processes, then used to pinpoint and test variations that allow for continuous improvement.
- » **Connection to the end user.** Connecting integrated supply chains to customers and other end users, then using data both about and for customers can facilitate the development of long-term relationships and loyalty.
- » **Hybrid business model.** Traditional one-off purchases can be delivered through ongoing procurement and services.

Digital transformation gives companies the impetus to get laser focused and develop their own "sweet spots" by construction type, region, or method, where they can then

optimize the supply chain and process. By honing in on their specialties, companies can become valuable free agents. Similar to the Uber model, but for construction, highly skilled or specialized resources could become decentralized and shared for better utilization and valuation.

This need for disruptive process changes in construction can be addressed using a constructible process model that connects and integrates the complete building lifecycle to better manage construction activities, foster collaboration and improve overall productivity.


The constructible process holds the key to successfully navigating digital transformation and reaping its rewards. Using constructive data and real-time collaboration, the constructible process ensures that every person, phase and process is working together seamlessly to optimize the entire design, build and operate lifecycle.

The constructible process is powered by three key main concepts:

- 1. Connected.** Connected construction ensures information is easily shared, understood and available throughout the project. Connectedness happens when technology—software, services, “Internet of Things” and machines—is integrated and replaces disconnected silos of data.
- 2. Content-Enabled.** Content-enabled data drives repeatable processes and effectively transforms the supply chain. Manufacturer- and factory-certified models contain the constructible data required to execute a project, such as cost, weight, and expected performance. Content ensures all team members are working from the same data and interpretation of it. The content also allows companies

to create constructible models faster through reuse of components.

- 3. Constructible.** Constructible data moves BIM beyond visualization to actual production. Constructible models contain the data and accuracy needed to build, create predictable plans, and drive downstream efficiencies in the field and factory. Constructible models enable more prefabrication, off-site fabrication, supply chain optimization, and jobsite automation.

This type of disruption could be just what’s needed to attract the next generation of workers and set the construction industry on the path for success. By embracing digital technologies, companies gain the ability to solve persistent problems and make significant leaps in transforming their business. 



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