

# Opinion: From Projects to Products



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There is a growing consensus within the Computational Design community that to best engage the digital transformation, our business models must transition from Projects to Products. As Director of Computational Design at CRB, a 1600-person Architecture, Engineering and Construction company, I am tasked with inventing and developing innovative ways of working that leverage the latest digital capabilities. This puts me at the ground floor of this transition. As I develop custom apps and automations that help us work faster and smarter, I am growing a team of software developers that are addressing our common problems in a new way; rather than solve project-specific problems, we are developing products that are specifically designed to be scaled across all projects.

A Project-based business model represents how nearly all design and engineering services are currently performed. Whatever our role may be, it is likely that we provide bespoke services for individual projects. When a new project arrives, we follow a similar workflow to provide the service again.

A Product-based business model is centred around the idea of digital scalability. Rather than repeat bespoke services for each project, a Product-based model strives to create, for lack of a better term, an 'app' that encapsulates the service into an automated digital workflow. Once developed, this platform can then be redeployed on all projects. The effort and expertise put into the app is thus scaled to all projects.

For most of us, the transition from Project to Product has already begun whether we realize it or not. It is likely that some of our work has already been productized but it is delivered in

support of a project-based business model. For example, software like AutoCAD and Revit have productized the drafting process. Many companies have developed custom Excel workbooks that can be re-used across multiple projects. All these tools are products that we use to automate small portions of our services. But as useful as these tools are, they do not represent the productization of entire design or engineering services. That is because our tools are meant to be used directly by the designer or engineer. This is akin to a craftsman using a tool to create a piece of furniture. Granted, we may be using a rotary power sander instead of sandpaper, but just like a craftsman, we are manually creating a single deliverable for a single client. Rather than design tools that require a user, computational designers like me encode our users' instructions into digital tools that automatically carry out those instructions. Such tools act like industrial robots on a digital assembly line. They represent factories for design and engineering services. These digital tools are capable of fully productizing our services.

Transitioning from a project-based business model to a product-based business model will align our services with the natural power of scalable digital technology. As more firms begin to realize these benefits, I expect the roles in our firms to gradually shift from providing bespoke services to designing centralized workflows that serve all clients. I expect more firms to hire software developers and computational designers that design Products, not Projects.

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