Facing the “Build or Buy” Question in Digital Learning

When implementing digital learning, institutions have the option of turning to a wide variety of third-party educational technology products and services or developing products and services in-house. Navigating the “build or buy” decision and predicting the impacts of that decision over time can be overwhelming, especially for institutions new to digital learning.

In the decision to build or buy, there is no right answer, and the institutions featured in “Making Digital Learning Work,” a 2018 report produced by Arizona State University and Boston Consulting Group, employ a range of approaches. On one end of the spectrum is the University of Central Florida, which invests significantly in internal capacity to create and sustain its online-learning offerings. On the other end of the spectrum is Arizona State University, which reports using over 130 third-party tools in its online courses. Both of these institutions are leaders in digital learning and serve tens of thousands of students annually in online courses and programs. UCF invests relatively more in faculty support, instructional design and instructional content creation to support its digital learning programs, whereas ASU invests relatively more in fees and subscriptions with third-party products and services. In both cases, these strategies have enabled successful scaling that works for each institution.

To help with the decision to build or buy a digital learning solution (whether a digital learning product, a customization of a product or course design services), this guide presents a handful of important considerations for your institution. We recommend that these considerations be explored by the individual with decision-making power, with input from colleagues in different units at the institution, like information technology, academics and finance. The result of the exploration is not likely to be a clear “yes” or “no” to either build or buy, but it should help decision-makers move toward a better understanding of the risks and benefits of both options.
Digital Learning “Build or Buy” Considerations

### Availability
- Does a solution exist that meets your needs?
- Are vendors able to customize a solution to meet your needs?
- How mature is the solution you seek?

Commercially available solutions are generally built by experts and leverage input from a broad variety of implementation scenarios and clients to inform product design and usability. Many offer customization of the base solution to meet the majority of potential institutional needs. More mature solutions are often easier to purchase off the shelf, as they have been refined through use by many other institutions and are supported by available data about their impacts and benefits (through reviews or impact analyses).

### Scale
- Can the solution quickly respond to higher demand?
- If the solution needs to be modified or replaced, has a long-term commitment to the solution or vendor been made that prevents changes?

Commercially available products are built to scale and are likely to be easier to adopt across a range of contexts for several reasons, including availability and quality of training resources, use of technology integration standards, and ability to transfer and learn from best practices.

### Strategic Importance
- Does the solution that you seek offer a particular strategic or competitive advantage to your institution?
- Would the development and maintenance of the solution in-house create an important strategic advantage?

If the solution or development capacity is an important differentiator for your institution, it may be worth developing something in-house that is unique to the institution and not available to other institutions.

### Time
- How soon do you need the solution to be in place?
- How long do you plan to use the solution?

Don’t underestimate the time required to build your own solution. A vendor-supplied option will generally be faster to implement, even with some customization. Estimating upfront how long you expect to use the solution will help you think through potential maintenance needs and the total cost of ownership of the solution.

### Internal Capacity
- Does your institution have staff with expertise in development and maintenance of this type of solution?
- Would maintenance and upgrades of the solution take resources away from other institutional projects?

Many institutions purchase a technology or service that is new to them in order to build in-house capacity.

### Total Cost of Ownership
- What is the expected cost to develop or implement the solution?
- What will maintenance and upgrade costs be over the expected lifetime of the solution?
- How many people will need to be trained to use the solution?
- Is grant funding available to support the development or implementation of the solution?

In many cases, the cost to develop a “quick fix” in-house is lower than the cost to implement a commercial tool. While this lower-cost option can be initially appealing, it’s important to compare not only upfront costs but also costs over the expected useful life of the solution to determine its total cost of ownership. These costs include maintenance and upgrade costs, as well as training costs.