Transforming the Student Experience

By Mary Jo Bitner, Amy L. Ostrom, and Kevin A. Burkhard

There is much discussion today about the need to transform higher education for the benefit of students, employers, and society at large. Experts and researchers list the numerous challenges: low student retention and graduation rates, the increasing cost of higher education, and concerns that graduates don’t possess the skills required to compete successfully in today’s interconnected, global marketplace. For example, less than 60 percent of students who enter four-year institutions in the United States earn a degree within six years. In addition to the time burden, college can be a financial burden for all types of students and their families. Those graduating in 2009 had, on average, student loan debt totaling $24,000.
Although recent research provides evidence of the positive outcomes, financial and otherwise, that come from earning a college degree, other evidence suggests that a substantial number of students are not making sufficient gains in fundamental skills such as critical thinking and written communication while in college. Further, some of the cross-disciplinary skills and knowledge demanded in today's economy are often missing in traditional, discipline-based degree programs. This may leave many students who do complete degrees without the skills necessary to compete successfully for jobs upon graduation and in the future.

These are just a few of the issues that point to the need for new thinking and innovative approaches in higher education. Clearly, technology can be used strategically to aid in finding solutions to these critical challenges. Yet technology alone is not the answer. We believe that technology must be used strategically to support a service-oriented view of higher education—one that has student, employer, and societal goals at its center. Although these challenges and goals are complex, one key to addressing them is to focus squarely on the student experience as a way of creating value for all stakeholders. The use of service design techniques—in particular, service blueprinting—can support this service view and aid in innovating and transforming the student experience within higher education.

By “transforming the student experience,” we mean improving or innovating the student experience in ways that significantly benefit the individual student, the collective (e.g., families, groups, cities), and/or society at large. “Student experience” is a broad term that encompasses various types, including: the entire higher education experience, spanning many years and multiple institutions; or a student's experience within a single course offering or degree program; or one or all of the student services that surround the higher education experience (e.g., financial aid, degree-completion tracking, housing, health and wellness, and other related experiences). Viewed at the highest level of abstraction, the total, end-to-end student experience encompasses all of these interrelated services and the entities that provide them. Any effort to transform the student experience thus involves the challenge of multiple goals, and sometimes conflicting motivations and incentives, within the system, as well as the complex needs and demands of multiple stakeholders, including individual students, families, employers, government officials, other funding entities, policy-makers, and faculty and other experts. Yet if the student and his or her success is not the primary focus, none of these other higher-level goals or objectives can even begin to be achieved.

In this article, we draw from our earlier report published by the Center for American Progress. We explore the transformative power of viewing higher education and the student experience through a service lens and explain and provide an example of how service blueprinting, a simple but powerful service design technique, can be used to transform student experiences in higher education. Throughout, the strategic role of technology in transforming student experiences is emphasized.

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Viewing Higher Education through a Service Lens

Viewing higher education as a service, or a service system, means that transformative initiatives will benefit from being viewed through a service lens. A service lens requires a belief in the fundamental statement that service systems (in this case, higher education systems) exist in order to serve consumers, collectives, and society at large. A service lens puts the consumer at the center of improvement and innovation initiatives and considers the consumer's experience to be a foundation for analyzing and making enhancements. A service lens also assumes that value is co-created with the consumer and that the value is in the experience, not in the “thing” provided. In other words, within service systems, consumers have key roles to play in co-creating the value they ultimately experience or make use of. In the context of higher education, this means that colleges and universities exist to serve students, communities, and society at large. Further, unless value is created for and with students first, there can be no value to communities, society at large, or the future. Value is co-created by students, not delivered to them, and it is the role of administrators, educators, policy-makers, and managers to facilitate this educational value co-creation. In addition, the service lens suggests that value is created in the end-to-end student experience, not simply in the knowledge gained or degree earned. The value of higher education is perceived by students during their educational experience and when they put what they have learned to use. Finally, higher education provides value to employers and society when students put their co-created knowledge and learning capacities to use.

Although we are not the first or the only ones to discuss higher education from a consumer or service perspective, we believe there are many benefits that could accrue from such a perspective being more widely adopted and implemented within higher education.
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Viewing higher education through a service lens represents a significant shift. It takes us from the idea of students navigating an often complex and fragmented higher education system to earn or receive a degree and moves us toward the idea of the higher education system being integrated and aligned to deliver the best experience for its students, allowing them to co-create outcomes that will benefit them for life. To move in this direction, higher education institutions must apply the tools and techniques that have been shown to facilitate consumer-focused improvement and innovation. In the use of these tools and techniques, the role of technology emerges as a strategic support and transformative resource rather than as an answer in and of itself.

Service Blueprinting: A Technique for Innovation

One specific technique is service blueprinting, which facilitates collaboration among key contributors and stakeholders across a broad customer experience to create a visual depiction, or blueprint, of a service. Service blueprints are typically created by cross-functional teams of individuals who have knowledge and awareness of the focal service process. Whether service blueprinting is being used to examine existing services or to develop new ones, the discussions that occur during these sessions have the potential to improve services or conceptualize services in new and important ways.

Service blueprinting is a simple-to-learn “process modeling” approach. It involves bringing contributors and stakeholders from potentially diverse groups within the organization together in a room around a common, externally focused process to discuss how the organization is delivering, and should deliver, its services. The outcome of this collaborative process is the creation of a visual depiction or map of the service that highlights steps in the process, points of contact that take place between consumers and employees and among employees, and physical evidence of the quality of the service that exists from the customer’s point of view. The key distinction between service blueprinting and other process mapping techniques is its anchoring on the consumer and his or her experience over time.

Figure 1 shows the typical components of a blueprint and their definitions, along with the lines that separate them.

On a service blueprint, the consumer’s experience is shown across the top of the blueprint as the experience occurs, chronologically through time, and from the consumer’s perspective. All of the activities and interactions that support and help to co-create the consumer’s experience are shown in rows below, with vertical connections showing the relationships to the consumer experience.

For ease of understanding, we present a simplified service blueprint of an overnight hotel stay in Figure 2 to highlight the outcome of using this technique. Although a blueprint of a hotel stay could go into significantly more detail at every level, this example demonstrates how a
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blueprint can visually capture the key aspects of a service. Integral to understanding the blueprint is to note that the consumer’s experience is the focus and that the steps involved in that experience are shown chronologically in time, from left to right, across the top of the blueprint in the customer actions row. Everything else in the blueprint is anchored on and supports the consumer/customer experience.

The role of technology as a delivery and support element of the service is clearly apparent in the row labeled “Onstage Technology Actions” and also as a support element in the row labeled “Support Processes.” In the hotel blueprint, onstage technology actions include providing a selection of movies for guests and processing their check-out information remotely through the TV screen. Registration system technology appears in the support processes row. In a higher education context, the onstage technology actions row of the blueprint would include technology that the student directly interacts with, such as the online interactive registration system and course-delivery websites. The support processes row of the blueprint would include critical technology support elements such as the student registration system, degree tracking systems, admissions support, and the institution’s IT support group.

Service blueprinting can help college and university leaders and employees to redesign, reinvent, and reimagine their educational offerings and service processes from the student’s point of view. Although there are many initiatives focused on improving higher education, it is important to ask whether the proposed changes will improve or worsen the student experience and student outcomes. Do the changes eliminate current “pain points,” those moments that customers or employees perceive to be annoying, challenging, or dissatisfying, or do the changes create new pain points? Do the changes lead to innovative and sustainable educational models, or do they just reinforce the existing ones? Do multiple initiatives work at cross-purposes, not in alignment with the student experience? Could further discussion and insights with stakeholders help improve how the problems and proposed changes are conceptualized or implemented? Often these questions are not considered as they cut across the organization, and venues or techniques are not readily in place to address them. We believe that service blueprinting is a technique that can support the answers to these types of questions.

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Service blueprinting can be used to transform a traditional course to an online offering while simultaneously enhancing efficiencies, the student experience, and student learning outcomes.

A specific example falls in the context of course redesign. Service blueprinting can be used to transform a traditional course to an online offering while simultaneously enhancing efficiencies, the student experience, and student learning outcomes. At Arizona State University (ASU), computer literacy had traditionally been taught in large lecture sections in which all students, no matter their individual starting point or need, experienced the course in exactly the same way. During a major redesign initiative, the course was transformed from this traditional large-lecture format to a hybrid and online course that could accommodate the diversity among students as well as create efficiencies for students, teaching assistants, and the faculty member teaching the course. The catalyst for the redesign was the belief that both the content and the delivery method for the course were outdated. For example, creating an interactive learning environment for students in a large lecture hall is difficult; thus, the student experience and learning opportunities were compromised. Other pain points addressed in the redesign included the time spent collecting and distributing hard copies of assignments, an activity considered by many to be a waste of class time. The challenges related to coordinating computer lab time for hundreds of students were also addressed. Given redundancies in instructors, graduate teaching assistants, and graders, the administration felt that reduced costs could be achieved by redesigning the course. Overall, it took two years to accomplish the redesign, with the overall goal to improve learning outcomes and the student experience while reducing costs.

The redesign occurred in phases, with a pre-pilot and then a pilot of the full redesign. The faculty member in charge of the redesign followed a user-centered approach similar to the service blueprinting technique. The redesign involved looking at the process by which students and faculty best realized value and achieved their goals and approaching the end-to-end experience of the course from the student’s perspective. Great attention was given to understanding the different types of students in the course and their learning preferences, their learning styles, and their learning expectations.

The final redesigned course has two versions: a completely online class, with one section that can serve approximately 500 students; and two hybrid sections that each have the capacity to serve approximately 300 students who meet once a week face-to-face, with other elements of the course occurring online. In both versions, 100 percent of assignments are turned in online, which removed one of the traditional course problem areas. All the sections are taught by one faculty member or course coordinator, with one teaching assistant. One benefit of the redesign is that all sections of the course use the same course-delivery website. On the first day of class, hybrid students are told that all the course material is available online and that coming to class is optional. Typically, the number of students coming to each meeting dwindles over time, with just the ones needing help attending regularly. This allows the faculty member to tailor the discussion and give more personalized attention to those students who need the most help. All the material for the entire course is available at the start of the semester, so high-speed learners can complete the course more rapidly than those who require more time to get comfortable with the material.

The redesigned course has more sophisticated content but also makes it easier for students to get help. Students complete nine online quizzes that demonstrate their understanding of computing concepts, seven self-guided learning assignments in which they are asked to apply computing concepts as well as computer-driven problem-solving techniques, and four major projects that require substantial inquiry. Based on each student’s preference, the students are given scheduled times to receive guidance in the computer lab, reducing and in many instances eliminating wait times.

A number of positive outcomes emerged from the student-focused redesign. First there was an increase in student success. Although the redesigned course provided more challenging
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content, 65 percent of its students earned grades of 70 percent or higher, compared with 26 percent of students in the traditional course. Student satisfaction with the course also improved. In addition, the course cost per student decreased from $50 to $28, due to the need for fewer faculty members and graders.10 This brief example clearly illustrates how consumer-centered techniques that focus on the student experience and goals can help direct a major change initiative. The result was greater value and a better experience for the student, lower costs for the institution, and greater productivity for both students and faculty.

While this specific example illustrates the power of a student-centric view in transforming one course, the beauty of blueprinting is that it can be applied broadly to help rethink and invent service processes throughout higher education institutions. It can be applied to academic processes, such as the online course just described, or nonacademic support services, such as advising, housing, and even parking. At ASU, the technique is being used to blueprint the parking experience, the admissions experience, the orientation experience, and other student activities. The technique can be used to examine micro processes delivered by and contributed to by a small number of departments or units. It can also be used to examine macro processes that involve many departments, groups, and functional areas—for example, a student billing experience that cuts across admissions, financial aid, scholarships, and housing. The technique could even be used for services that involve other campuses or private companies—for example, developing new collaborative degree programs across institutions. Blueprinting can focus on existing customer-facing processes or offerings as well as on service processes or offerings that are being put into place for the first time. (Although our focus here is on the student experience, service blueprinting can also be used internally within an institution for services provided by one unit to another, where the customer is the internal client or unit.)

**FIGURE 3. Using Service Blueprinting in Higher Education:** Other Examples of Student-Focused Processes

<table>
<thead>
<tr>
<th>SERVICE IMPROVEMENT</th>
<th>SERVICE INNOVATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Redesign advising process within a college/school</td>
<td>Create process and online non-credit courses to aid developmental learners</td>
</tr>
<tr>
<td>Improve career services for online degree students</td>
<td>Develop new programs to help at-risk students</td>
</tr>
<tr>
<td>Increase opportunities for students to enhance critical thinking skills and written communication skills during freshman and sophomore years</td>
<td>Develop university-wide, student digital portfolio creation and feedback processes for career advancement</td>
</tr>
<tr>
<td>Enhance credit transfer partnership with select community colleges</td>
<td>Develop new, collaborative degree programs across universities</td>
</tr>
</tbody>
</table>

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Figure 3 highlights examples of how the technique can be used. The placement of any particular process along the micro-macro process continuum is influenced by how many groups, departments, and people contribute to a service and need to provide their expertise in blueprinting efforts. This is likely to differ by institution. When private companies or other institutions are brought in as collaborators, this in and of itself can make the process more macro in focus. Similarly, the service improvement versus service innovation placement on the continuum depends on whether or not an institution has the process of interest already in place. If it does, the blueprinting focus will likely be on service improvement. However, even with a process in place, a radical change may be deemed necessary, in which case the blueprinting efforts would be framed further toward service innovation on the continuum.

**Technology’s Role in Transforming the Student Experience**

Throughout this article, the strategic role of technology and its potential to aid in the transformation of higher education and the student experience has been emphasized. Yet clearly, it is not technology itself that is transformative. Rather, viewing higher education through a service lens and using integrative, student-focused techniques, such as service blueprinting, are what can help organizations come up with transformative initiatives. Infusing technology into these initiatives then becomes obvious and necessary. The example of transforming the online course experience is illustrative. In that case, technology was the centerpiece of the innovation. But again, it was not the technology per se that resulted in the success but, rather, the way in which the technology was used strategically to solve a problem.

We see a critical need for technology to aid in the strategic transformation of higher education through major innovations and significant service improvements. The explosion in online education is one important arena. Through online programs and other innovative and forward-thinking initiatives, higher education will become more accessible and relevant to greater numbers of learners in wider geographic areas over time. Further, the productivity increases that result for both faculty and students in well-designed online programs are apparent and valuable. Still, their design and delivery is not always optimal. This is where blueprinting can
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help. Blueprinting a new or existing online opportunity can shed light on the flow of activities, interconnections, pain points, and opportunities for co-creation in these new offerings, making them more successful.

Beyond innovative new offerings that can transform the student experience, technology is being infused into institutional support systems in ways that can enhance experiences outside of class and increase student productivity. Most colleges and universities today have technology-based systems for tracking student assignments, degree progress, and financial matters, among other services. These systems, when done well, greatly increase students’ productivity and remove roadblocks and barriers that can get in the way of their educational goals. However, as with online education, the design and delivery of these systems is not always optimal, nor do related units on campus always work well together to create seamless experiences. Blueprinting is a technique that can help to highlight the pain points in these types of processes and bring together the right groups from across the institution to make improvements in the internal support structures—or even to come up with totally new models of service.

Conclusion

From the perspective of employers, communities, and society at large, transforming the student experience should, in theory, be good for all. If students have greater access, are more productive, have improved experiences throughout their education, and are better able to successfully co-create their learning, everyone should benefit. Using a service lens to view higher education allows us to put the student at the center and to consider higher education as a co-created set of activities and experiences that have value only in their use over time. The specific design and innovation technique of service blueprinting is valuable for illustrating the student experience and for bringing the right parties together to support the innovation and improve the existing services that can transform higher education. Blueprinting is easily learned and is applicable across all types of services within higher education. Through the application of this technique, the strategic importance of technology immediately becomes apparent. Technology serves as an innovative way to deliver and also support the student experience. Using service blueprinting to strategically integrate technology into institutional processes and offerings will lead, ultimately, to transforming the student experience.

Notes


8. The course, Computer Literacy (CSE 180), was redesigned at ASU by Toni Farley, a post-doctoral fellow at the Translational Genomics Research Institute (TGen) and former lecturer in the School of Computing, Informatics and Decision Systems Engineering and the School of Letters and Sciences at ASU. A discussion of this redesign was also presented in Anya Kamnetz, DIY: Edupunks, Edupreneurs, and the Coming Transformation of Higher Education (White River Junction, Vt.: Chelsea Green Publishing, 2010).

9. Information about CSE 180 as it was delivered before the redesign, as well as information about the redesign and the outcomes that were observed, was provided by Toni Farley through discussions and from presentation materials including those from the 2009 Redesign Alliance Conference in Orlando, Florida.

10. Similar outcomes have been found by the Program in Course Redesign managed by the Center for Academic Transformation; see Carol A. Twigg, “Improving Learning and Reducing Costs: New Models for Online Learning,” EDUCAUSE Review, vol. 38, no. 5 (September-October 2003), pp. 28-38, http://net.educause.edu/ir/library/pdf/ERM0352.pdf.

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