Connected Learning

Scenario

Luis is a second-year student at a local community college in Arizona, which is part of a national network of colleges and universities. Before Luis moved to Arizona from Michigan, he was enrolled in a dual-enrollment program in high school that is part of the same network, and his work in Michigan counts toward his degree in Arizona.

When Luis was considering classes for this academic year, he was overwhelmed by the options and started choosing courses that sounded interesting but that would not have helped him complete his degree quickly. The integrated advising system alerted Luis and his advisor that if he took those courses, it would likely take him three years to complete his program of study. As a result of that information, Luis adjusted his courses to stay on track to graduation. The advising system also ensures that the credits he takes will transfer to the four-year program he hopes to enroll in.

During the first week of classes, Luis receives an alert letting him know that he is at risk of not passing his math course. The college directs him to specific resources (study center, coaching) and sends him text messages to remind him how this course will help him achieve his goals. The analytics system used by the college network recognizes patterns in Luis’s online engagement based on data it has collected on millions of students; this data allows the system to identify his style of learning and to recommend approaches that are most likely to be successful for him. Luis hopes that next semester he can complete additional credits by taking classes that use adaptive learning, which adjusts to what he needs to study and lets him move quickly through the content that he already knows. He believes he can complete a couple of courses quickly because of his hands-on work experience.

Although the college is supported by the local community and serves their needs, its inclusion in the national network enables considerably greater connectedness. By aggregating demand and collaborating, the colleges are able to contain cost, leverage expertise, and achieve scale in ways that benefit both local and national communities. The institutions have developed new business models, creating a federated and collaborative enterprise providing up-to-date and high-quality services and support to hundreds of thousands of students.

1 What is it?

Higher education is entering a new, evolutionary phase defined by connections between everything and everyone—a highly connected ecosystem of technologies that support sharing, collaboration, and global links to specialists and students in every area of endeavor. The key aspect of this phase of education is moving beyond the familiar notion of information technology simply as the means to deliver content and e-learning. What emerges today is an emphasis on integration, enabling all participants in higher education to assemble components in unique ways to construct the pathways needed to accomplish educational goals. This is a shift in the experience of higher education, enabling the learner to uniquely integrate personal connections, in-class and out-of-class experiences, collaborations, and resources of all kinds. The result is a deeper learning experience that better addresses learners’ specific needs.

2 How does it work?

Connected learning is rooted in the active participation of students, instructors, advisors, and collaborators in the orchestration of resources and the cultivation of learning pathways. Individual learners organize resources, collaborations, and technology tools in unique and personal ways to accomplish particular goals. For example, a student tackling organic chemistry might supplement the reading with materials from a MOOC or open courseware site, participate in an intercampus study group, or utilize a third-party assessment resource to test his/her mastery of the topics, while using a variety of technology devices to accomplish these activities. Institutions might provide a combination of automated and personal support, such as alerts from a learning analytics system, recommendations and coaching from a mentor or advisor, or a set of Internet-based resources that can help students master the challenging subject. An instructor might support a connected learner by providing a variety of content choices and identifying items that can help build a customized path through the subject matter. Supported by interconnected technology systems, instructors and advisors might use learning analytics applications to monitor in real time how each student is doing, predict who might need additional assistance, and make just-in-time adjustments to the syllabus and course assignments.
Connected Learning

Who’s doing it?

Connected learning attracts those interested in learner success and the growing role collaboration plays in all facets of higher education. As such, potentially all of the participants in the educational landscape—learners, educators, institutions, accreditors, corporate entities, employers, and others—can use the concept of connectedness to recast their roles and reimagine the dynamics of learning. Learning opportunities are emerging not just from colleges and universities but also in the workplace, communities, and from do-it-yourself learning providers. Many colleges and universities are engaged in various experiments designed to increase student success by creating new models based on a connected learning foundation.

Why is it significant?

Connected learning puts students at the center of the educational experience, offering the ability to connect courses, people, and resources to develop unique personalized learning pathways. In this way, a learner can “construct” an educational program from multiple providers. As students increasingly act as co-creators in discovering routes to their educational goals, roles also shift for others in higher education. Institutional IT units might change their focus, concentrating less on providing resources and services and more on the development of an infrastructure inside and outside the organization that can help students achieve learning goals from the many learning threads available to them. Faculty and advisors can use analytics to modify approaches, shift resources, and help students customize their learning to fit their long-term goals. Although traditional, faculty-presented classes will likely remain integral to this process, institutions will need to rethink some longstanding assumptions about issues such as transfer credit or credit based on competency. Within this holistic system, students can have clearer insight into their learning and collaboratively direct a trajectory toward their learning objectives.

What are the downsides?

Because the concept of connected learning is just starting to take shape, all players are inventing their approach as they go. While this presents opportunities for creative combinations and room for students to explore new interests, it also requires learners and educators to piece together choices from a complex array of options. In the near term, those who support learners could face increasing workloads as they develop systems that provide a unique learning path for each student. The many reinventions required by this process could be difficult and might meet with resistance. Some students, particularly those who enter higher education with limited experience, may be at a disadvantage with the new role the digital ecosystem plays in their education and the new responsibilities they must embrace to ensure their learning is connected.

Where is it going?

Connected learning has the potential to reshape both business and learning models in higher education. As better tools and strategies emerge for integration, colleges and universities may need to recognize and support connected learning to remain competitive. When learning is defined less by the institution and more by the learner, a learning path could wind its way through traditional college courses, a community project, open programs, courses from other campuses, mentors from business and industry, and courses offered by third-party providers that are not colleges at all—the key will be in integrating these. Any or all of these resources, selected from a global assortment, could be used to meet educational goals. Beyond the conferring of degrees, certifications, or credentials, higher education might increasingly embrace opportunities for lifelong learning undertaken for the sake of the knowledge and skills it provides.

What are the implications for teaching and learning?

Connected learning requires not just the acquisition of knowledge but also an understanding of how to use connections to find answers, seek out mentors and experts, investigate procedures, experiment with possibilities, and develop competencies. In light of this complexity, many aspects of the way students, faculty, and institutions work to accomplish the teaching and learning mission will need to be rethought in order to respond to the new opportunities and changed landscape. In some cases, it may require the invention of entirely new teaching and learning frameworks and models. New approaches to student support may be required to ensure that all learners can successfully navigate this complex and interconnected landscape. Institutions will need to think about partnerships and collaborative alliances as ways to augment their resources and to widen the network of resources for learners. The online dimension of learning will continue to grow in importance, and faculty roles will continue to evolve. Connected learning brings with it the opportunity to revisit assumptions about teaching and learning and to explore the opportunities of integration and connection.