

Attachment 1 - Executive Summary

This report maps the University's Strategic Plan, ASU President Michael Crow's vision of an adaptable, scalable, and technology-enabled higher education experience, to future-focused technology megatrends in service of Universal Learning. ASU's technology strategy, programs, and investments will be aligned with a 1/3/5-year vision of the most impactful technologies informing the portfolio of programs and services of the University Technology Office (UTO). The aim of the project is to help an initial shaping and framing of ASU's technology strategy in the context of teaching, learning, research, and community service. UTO is committed to ensuring that innovation is infused in academic programs in meaningful ways that nurture the economic, social, and cultural growth and wellbeing of the community it serves. This draft plan reflects the culmination of several research, interview, and analysis activities to generate a technology-enabled five-year vision for manifesting universal learning at the New American University.

The Velocity of Change

In March 2018, Dr. Crow held a community conversation around the "Velocity of Change" and its impact on the trajectory of ASU. He asserted that human beings have never experienced change at the rate they do now. How people communicate, create, work, and learn is in constant evolution due to the

"The university has tremendously transformed in 30 years, but with technology only dramatically affecting us for about the last five or six years."

- Dr. Michael Crow, ASU President

ubiquity of technology and internet connectivity. Coupled with the affordances of technologies, these changes in how people operate have enabled significant progress within the ASU community in terms of the flexibility and convenience of learning opportunities. Now considered the most innovative university in the country, ASU is not just graduating more students, but also cultivating mindsets that continuously re-imagine and re-shape a better global community.

A Community of Individuals

It is important to have a sense of the individuals who comprise this increasingly global community. Today's student profile looks drastically different than it did in the past 30 years, with an increasing number of working students from diverse socioeconomic backgrounds. Many are first-generation students from low-income families who are financially supporting themselves and even their loved ones. Without major efforts like that of ASU to expand access to affordable education, these individuals may never have had the opportunity to fully realize their career and life goals.

An interview with a student from India highlighted ASU's ability to reach across the world to guide a young woman pursuing a Master's in Computer Science towards her goal to work for Google or Facebook while she is gaining valuable work experience at UTO. She lamented that in India she would not be allowed to work and study simultaneously. Another conversation with an ASU Online undergraduate student helping his family business stay afloat further demonstrated how ASU enables its students to strike a balance between working and learning. A third interview example revealed how an entrepreneurial graduate student who just launched his own business could have the flexibility to learn and integrate new knowledge of global sustainability practices into his LGBTQ+ tourism startup. Factoring in learners' unique goals, ASU is paving the way for seamless lifelong learning — as close to debt-free as possible — to help students make a lasting mark on the community.

Honoring ASU's Charter

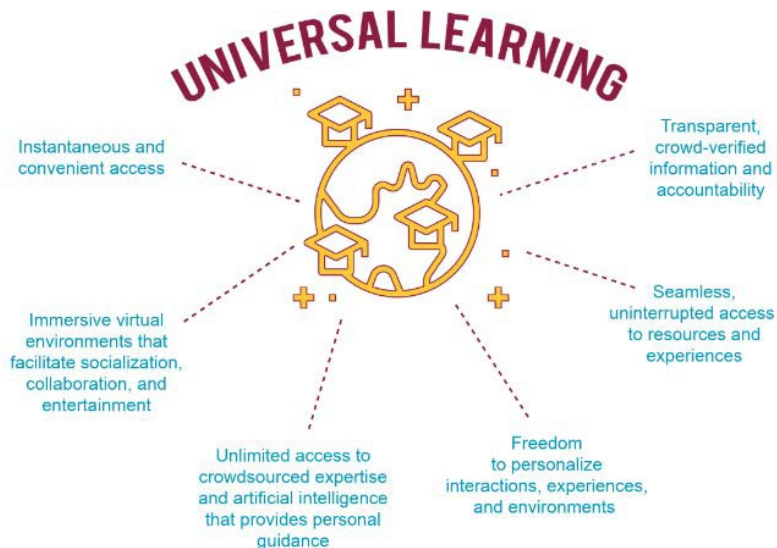
While each of these stories are unique, together they are part of a rich tapestry of transformative student experiences that embody ASU's inclusive charter. After all, the ASU community can only be as successful as its key stakeholders. This report therefore does not begin at ground zero; it acknowledges the university's tremendous track record in becoming a highly ranked research university that exemplifies innovation around every physical and digital corner. ASU has already set a new standard for supporting the contemporary learner and anticipating future ones, increasing access to high-quality learning with a lens toward massive scale. Rather, this report will explore and address questions about vital focus areas for achieving Universal Learning, and the technologies in varying states of maturity that UTO should consider for enabling and accelerating progress.

ASU is a comprehensive public research university, measured not by whom it excludes, but by whom it includes and how they succeed; advancing research and discovery of public value; and assuming fundamental responsibility for the economic, social, cultural and overall health of the communities it serves.

Towards Universal Learning

The idea behind this report is that five programmatic focus areas, enabled by a combination of technologies, can help realize Dr. Crow's dream of Universal Learning — an evolving model of higher education that Dr. Crow describes as “capable of being of service to all learners, at all stages of work and learning, from all socioeconomic backgrounds, through educational, training, and skill-building opportunities.” Dr. Crow further elaborated on the components that comprise Universal Learning (Figure 1).

Figure 1: Dr. Crow's Components of Universal Learning



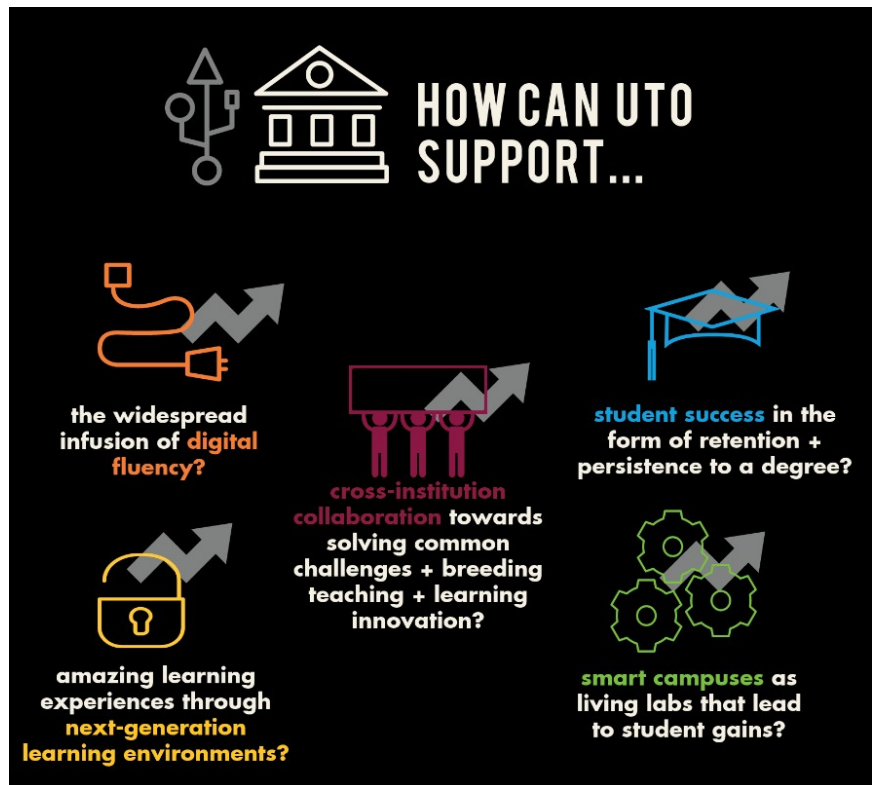
The Universal Learning elements are inherent in the goals and approaches for UTO to leverage nine featured technologies. For example, the concept of a Next-Generation LMS encompasses greater flexibility and ubiquity in how students discover, experience, and interact with learning content — and each other. In another case, the application of the Internet of Things for building a Smart Campus reflects the idea of transparent, crowd-verified information and accountability as ASU community members are seamlessly connected to every object, resource, and person when they step foot anywhere on ASU's campuses.

Universal Learning requires a major shift in how the higher education lifecycle is viewed. Traditionally, an individual's learning trajectory can be broken down into distinct, disparate stages. In contrast to this historic approach, Universal Learning means that learning is a lifelong journey, and institutions must have a continuous and connected presence in individuals' every life stage. In pursuit of Universal Learning, ASU is undergoing a cultural shift to foster new organizational models that breed collaborative innovation. UTO's leadership in this effort is critical; technology strategy plays a significant role in the vision to build inclusive community infrastructure, enable authentic and ubiquitous learning, personalize the learning journey for each student, and eradicate barriers that stand in the way of access and global collaboration.

Guiding Questions and Focus Areas

UTO is well-positioned to leverage its business intelligence to support innovative teaching and learning practices by strategizing around five questions that can be addressed in the form of programmatic focus areas (Figure 2). Each programmatic focus area will be defined and detailed in the next section of this report. By clearly addressing these questions within the overall strategic planning effort, UTO can propel ASU towards Universal Learning over the next five years. What follows in this report is a framework for both pragmatic and progressive opportunities to keep ASU at the lead of the innovation curve in support of the Universal Learning vision.

Figure 2: UTO Programmatic Focus Areas



Further, an adapted version of McKinsey's Three Horizons Framework will help organize discussions and actionable analysis around the programmatic focus areas in terms of 1) enhancing existing experiences; 2) expanding emergent opportunities; and 3) exploring progressive ideas. This approach will be discussed in more detail in the Framework section.

Enabling Technologies

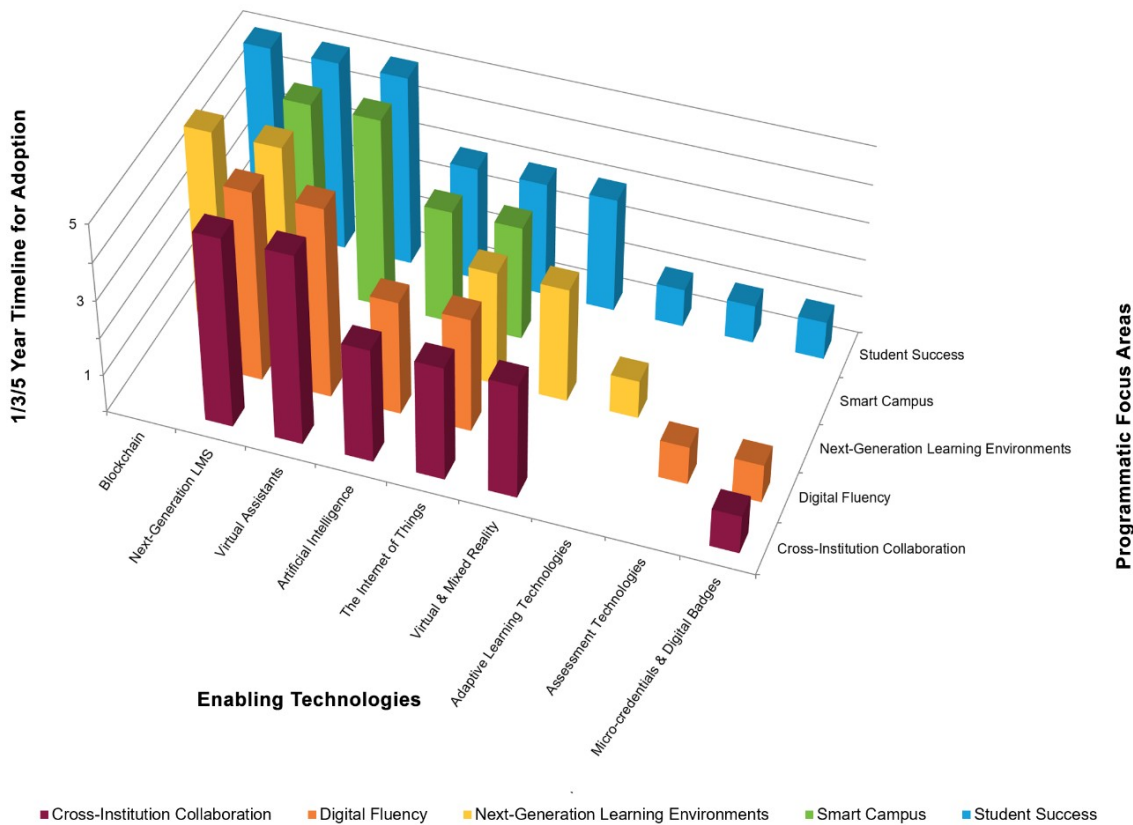
UTO can directly tie enterprise-level strategies and applications of emerging technologies to promoting the programmatic focus areas at ASU as defined above. Nine such technologies will be explored in a 1/3/5-year outlook for their potential to, true to Dr. Crow's notion of the "Velocity of Change," accelerate positive cultural outcomes that are felt across the community, towards Universal Learning. The nine enabling technologies are represented in Figure 3, along with the programmatic focus areas and Universal Learning elements each one has potential to advance.

Figure 3: A 1/3/5-Year Vision of Nine Technologies to Enable Universal Learning



Each programmatic focus area will require the strategic deployment and management of a set of the enabling technologies, in the near-, mid-, and short-term. Figures 3 and 4 depicts the alignment of those technologies to develop those program areas within a 1/3/5-year framework. Later in this report, the featured technologies are discussed in context of how they will advance the programmatic focus areas in detail. This alignment activity concretely connects the UTO's growing portfolio of technologies with tangible, ideal outcomes for the ASU community.

Figure 4: Programmatic Focus Areas Mapped to Enabling Technologies for Short- and Long-Term Growth



Additionally, specific hypotheses will be posited to 1) articulate actionable steps for UTO and 2) provide entry points for UTO to measure the success of their technology investments and support. For example, the discussion of adaptive learning technologies in the context of supporting the programmatic focus area of Student Success delves into the imperative to scale high-quality offerings as ASU Online grows enrollment from 30,000 to 100,000 students. An adaptive-active model, helmed by EdPlus, has already proven successful in immersion courses. Thus, the hypothesis is made: *If UTO supports the scaling of adaptive learning to ASU's online offerings, it will bolster retention and persistence for online learners.* By allocating sufficient resources to supporting EdPlus in this endeavor, UTO is helping to keep more students engaged while promoting personalized learning and real-time intervention.

These discussions and more lay the groundwork for UTO to actively moving the needle towards Universal Learning over the next five years. The report concludes with a set of concrete recommendations for expanding UTO's portfolio of community-changing innovations.