

# Transforming Higher Education

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In recent years, it has become increasingly evident that higher education in the United States is experiencing somewhat of a paradigm shift. We are being challenged to reform our institutions in order to respond to changing societal needs resulting from the fast-paced, digital transformation of industries, societal systems, and our daily lives. The member institutions of the American Academy of Kinesiology will need to think long and hard about how they will respond to these challenges. America's universities have a responsibility to be a catalyst for the human-centric, technology-driven transformation of sectors such as transportation, agriculture, medicine, public health, clean energy, and manufacturing, among others, and to provide the vision, leadership, and innovation that such workforce transformation demands. Within the academy, we rightly take great pride in our long-standing contributions to the development and deployment of breakthrough discoveries and innovations that have contributed to the transformation of society. However, we have begun to realize that our institutions will need to bring this same commitment to innovation to our teaching, curricula, and instructional programs. Addressing these new areas of need and opportunity will require institutional innovation and reform, for us and for the postsecondary education sector generally. I believe that American Kinesiology Association member departments can play a significant role in the transformation of higher education at our institutions. I am delighted that the American Kinesiology Association has begun to think through how these changes will impact the future of our discipline. I am both optimistic and excited about the many ways that American Kinesiology Association member institutions will continue to play a leading role in the new higher education reality.

**Keywords:** online education, certificates and credentials, professional education

I am delighted to have an opportunity to address my colleagues from the American Kinesiology Association (AKA), and I am especially pleased to be able to speak to you about some of the exciting opportunities facing those of us who work in higher education.

In recent years, it has become increasingly evident that higher education in the United States is experiencing somewhat of a paradigm shift (Soares et al., 2017). We are being challenged to reform our institutions in order to respond to changing societal needs resulting from the fast-paced, digital transformation of industries, societal systems, and our daily lives. The member institutions of the American Academy of Kinesiology will need to think long and hard about how they will respond to these challenges.

America's research universities have a responsibility to be a catalyst for the human-centric, technology-enabled transformation of sectors such as transportation, agriculture, medicine, public health, clean energy, and manufacturing, among others, and to provide the vision, leadership, and innovation that such workforce transformation demands. Within the academy, we rightly take great pride in our long-standing contributions to the development and deployment of breakthrough discoveries and innovations that have contributed to the transformation of society. However, we have begun to realize that our institutions will need to bring this same commitment to innovation to our teaching, curricula, and instructional programs.

In short, the world is changing, our students are changing, the job market is changing, and our monopoly in the higher education space is eroding. In their thought-provoking work, *The Great Upheaval, Higher Education's Past, Present, and Uncertain Future*, Arthur Levine and Scott Van Pelt invite us to reflect on

some new realities facing the research university (Levine & Van Pelt, 2021).

- New content producers and distributors will enter the marketplace, challenging the long-standing monopoly of universities and colleges, driving up competition and consumer choice, while driving down prices.
- The power of higher education consumers will increase, giving them more options with respect to what, when, where, and how they learn.
- Students will demand that we embrace technology that provides them with access to personalized learning experiences in a way that works best for them and not for us.
- The knowledge economy will increase emphasis on learning outcomes and de-emphasize traditional educational metrics such as time-bound degrees and on-campus programs.
- The need for continuous reskilling and upskilling of the workforce will increase the demand for educational programs that are closely aligned with the labor market and provide certificates, microcredentials, and badges that have value beyond traditional college degrees.

At my institution, the University of Illinois Urbana-Champaign (UIUC), we believe that, in the light of these new realities, we have an imperative to transform ourselves into a different, more nimble and responsive institution. We are committed to playing a leadership role in the development and deployment of new approaches to education and to renew our commitment to changing lives through learning, discovery, engagement, and economic development. The benefits of expanding our efforts in this arena will be substantial.

While the implications for individual academic disciplines will vary, I believe there is much relevance of this need for

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transformation for those of us working in the field of Kinesiology. For a variety of demographic and other societal reasons, the numbers of students entering universities directly from high school across much of the United States, including the Midwest, is constricting and will continue to do so for the foreseeable future. Conversely, demand for nontraditional programs, including online degrees, badges, and certificates, is growing substantially. Adult learners are actively seeking to access personalized learning and are more than willing to contribute to the cost of these educational opportunities, provided they are available to them in modalities that suit their schedules and life circumstances. Universities that are able to expand their reach and impact and achieve excellence at scale while maintaining their core mission can also reap substantial financial rewards. These funds can subsequently be reinvested to advance the research and scholarly mission of the institution. If our universities fail to transform in a way that enables them to reach and support this nontraditional but motivated cohort of learners, other providers certainly will—and are already doing so.

Addressing these new areas of need and opportunity will require institutional innovation and reform. At my institution, much work is already underway, including an innovative and successful partnership with Coursera that brings an online education to many thousands of individuals who are unable to relocate to Urbana-Champaign. However, there is much more that needs to be done. In Spring 2022, our provost asked us to assess our progress and consider what needs to occur in three critical aspects of educational transformation at UIUC:

**Nontraditional Programs:** We considered new approaches to education and training including certificates, credentialing, and other nondegree programs. We assessed current offerings and successes and evaluated opportunities for growth.

**Innovative Learning Environments:** We considered present and future educational and training environments for learners and proposed ways in which the university will lead in advancing new approaches and innovations for technology-enabled personalized learning and mentoring.

**Partnerships:** Recognizing that transformation cannot be achieved by working alone, we explored how the university can partner with others to magnify the impact of our efforts and increase our reach across the state and beyond.

In each of these critically important areas, we have proposed actions that our institution can and should take in order to ensure that we continue to lead as a preeminent public research university for the next 150 years.

## Nontraditional Programs

The UIUC has been engaged in nontraditional education for a very long time. We began offering an online education program as early as 1959 with the development and deployment of PLATO, the first generalized computer-assisted instructional system designed by researchers at The Grainger College of Engineering. Our commitment to advancing educational innovation has persisted. Today, we have a strong and growing collection of online degree and certificate programs that reach a broader segment of the general public with opportunities to advance or reskill for a better career, to grow as a human being, and/or to onramp into a degree program. However, the scale and breadth of these offerings varies greatly across colleges, departments, and disciplines, and much work remains to address areas that are not yet served. I will note that many Kinesiology programs across the nation are beginning to

recognize the potential offered by expansion into new areas of learning and accessing new and previously untapped learners.

The growing demand and utilization of online/certificate programs provide universities with a unique opportunity to (a) amplify their impact on society, elevating opportunities for diverse populations to improve their socioeconomic circumstances and their understanding of complex modern issues and (b) grow the university and its resources for education, research, and service in these areas. In order to successfully respond to these opportunities, universities will need to expand resources and support available for these activities, increase their investment in the initiation of new online/certificate programs, and rely on units with successful programs to reinvest a portion of these revenues toward the growth of their programs in scale and number.

At many universities including ours, coordination and support for online/certificate programs is made available through a combination of centralized and distributed services. This support includes marketing (market research, advertising campaign design, and brand marketing); enrollment management (admissions, enrollment, registration, and student services); instructional design (pedagogical structuring and platform utilization); and media production (lecture recording and video editing). Access to these services is key to the development and launch of new online/certificate programs, especially for colleges and departments that do not yet offer such programs at scale. In many cases, online expansion has required a rethinking of our traditional ways of doing things and embarking into areas that were once not seen as the province or concern of highly selective and research-intensive universities.

Institutional funding needs to be made available to support the establishment of innovative, scalable, and sustainable new programs with the potential to deliver the needed transformation and growth. Such proposals should include (a) a multiyear plan, including the budget and resources necessary to engage the faculty and staff needed to develop, launch, and sustain the program; (b) the demand, expected initial enrollments and projected growth of the program; and (c) the potential of the program to contribute to the expansion of nontraditional education on our campuses and beyond.

As the demand for nontraditional education grows, departments and colleges will need to plan to support the larger enrollments that accompany the addition of new programs. To do this, an institution will need to develop staffing models that can support growth and sustain operations at scale. For example, both online and nondegree programs will need to provide area-specific student services, including program advising, career guidance, and support for student well-being.

Our efforts thus far in online/certificate programs have largely been viewed as optional activities that are conducted apart from what the campus has largely considered a more fundamental educational mission of providing traditional on-campus degree programs. A successful transformation of higher education will require us to integrate online/certificate programs into the fundamental educational activities of all departments. The faculty will need to consider the role they will play in this transformation, the societal impact their participation will make, and how their efforts will grow the university and expand our reach and impact.

In expanding their footprints, universities should strive to ensure financial aid eligibility for its nontraditional offerings to produce the greatest impact on workforce and societal needs. This will require additional staffing to meet reporting burdens and other compliance regulations. For example, “Gainful Employment” regulations will require the institution to provide completion rates,

employment rates, student debt upon completion, and other information for nondegree programs in order to be eligible for federal financial aid.

To date, most nontraditional offerings have largely targeted the graduate level, via coursework-based “professional” master’s degrees, or as shorter, targeted graduate certificate programs. We should build on this success and consider how we can address the needs of the nontraditional undergraduate student. One approach is to expand partnerships with 2-year institutions to broaden and diversify pathways into bachelor’s degree programs. We should also consider how we can provide additional on-ramps into degree programs through online certificate programs. Such online certificates could be offered in conjunction with community college courses to provide more targeted coursework in the student’s expected major to better facilitate transfer to Illinois. We also have an opportunity and an obligation to develop online degree completion programs for the substantial number of students who have left college without completing their degrees.

At Illinois, we plan to expand our noncredit certificate offerings (e.g., “MOOC” courses delivered using Coursera or Canvas) not only as stand-alone opportunities for learning and credentialing, but also as on-ramps into our credit-bearing certificate and degree programs. Currently, credit-bearing certificates can be applied to degree programs through the standard transfer process. We have begun to explore how success in noncredit courses can provide a viable on-ramp to our traditional degree offerings. For example, pathways have been developed for non-credit-bearing courses to be applied to admission into the online iMBA and MCS degrees. These mechanisms need to be codified and communicated so that they can be provided in a wider variety of areas, certificates, and degree programs.

## Innovative Learning Environments

A vision of personalized learning employs multiple modalities to provide alternative pathways and mediums through which learners can pursue educational opportunities better suited to their needs, interests, situations, and learning preferences.

One of the most important benefits of new uses of technology in the classroom is to provide an opportunity to rethink how we teach and what we teach. This redesign process is as important as the specific features and affordances of the technologies themselves. In doing so, we need to move beyond seeing online course and degree options as a second-best substitute for the “real” teaching and learning of the classroom, and see online and blended courses as part of the mainstream business of the campus, for all students, with learning quality at the forefront.

Individuals study and learn best in diverse ways, but the typical classroom is a one-size-fits-all exercise. Multiple modalities can support learners who thrive from the energy of a live, performative lecture, while simultaneously engaging others who do better with video recordings that they can pause, rewind, or rewatch, or game-like learning experiences where they learn by exploring and problem-solving. Some learners thrive in the live give-and-take of a classroom discussion or debate; others participate more actively in an asynchronous, text-based modality; others learn best by doing. What kinds of class projects encourage learning and provide a basis for evaluating learning progress? We do not need to choose between these; with new learning technologies, we can accommodate them all. In this context, “multiple modalities” pertain both to diversifying approaches to suit diverse learner needs *and* to suit diverse subject matters, concepts, and understandings.

Any initiative to expand online and blended instruction needs to inspire commitment and enthusiasm among the faculty. Online and blended programs are often justified primarily in relation to generating revenue or achieving scale in new enrollments. While these can be important outcomes, as goals they do not inspire most faculty nor motivate them to see online and blended methodologies, and online learners, as central to their priorities. If we begin with the two principles of improving the quality of instruction and accommodating the needs of diverse learners, the goals of generating revenue through expanded enrollments and achieving scale can be attained as a consequence. But the question is the order of priority between means and ends, and what justifications better tie online and blended instruction to our core values as a university. Nothing in this arena will succeed without enthusiastic faculty buy-in.

All instructors should have access to resources and training to incorporate appropriate digital technologies that provide multiple modalities through which students can access course material and participate with faculty and each other, including students who cannot come to campus. This should include course lectures accessible both live and through video; discussion opportunities that are both live and asynchronous, incorporating different channels of communication among class participants (voice, video, text, etc.); digitally based problem-solving simulations and exploration opportunities; and other reforms. The diversification of learning pathways is one of the chief benefits of new instructional technologies.

Faculty should be rewarded and supported for having the same attitude about experimentation and discovery in their teaching that they now have toward their scholarship: How can this work be done differently, and better; how can classes be more engaging; what new ideas and resources can guide instructional improvement? A commitment to expanding access to learning means that online and blended programs also need to be seen as opportunities to drive down costs and promote affordability. Lower cost nondegree options, stackability toward degree pathways, economies of scale, and reducing time to completion are all potential benefits of new program models.

In pursuing this vision, new technology and innovative instructional approaches need to be seen in relation to each other: What technologies mainly offer is an opportunity for instructional exploration and experimentation. Technological reform is not an end in itself; the values of instructional quality and variety need to be at the forefront, and we also need ongoing research efforts to assess when (and for whom) technological reform yields instructional benefits.

Some examples of instructional strategies that support innovation include

- *Flipped classrooms*: The “flipped” model emphasizes the benefits of providing lecture content asynchronously, and using precious live, in-person, or synchronous online interactions for those instructional activities that can best be done live (questioning, hands-on group work, tutoring, giving feedback, etc.).
- *Dual (aka hybrid, “HyFlex”) mode*: With audio pick-ups, cameras, and projection screens—and with instructor effort and attention—online participants can be actively and seamlessly included along with in-class participants.
- *Game-based learning and digital problem-solving exercises*: Integrating elements of play and games into courses has been a long-standing educational innovation. Using digital technologies offers opportunities to capture the kinds of deep

engagement and player persistence in learning environments that are typically associated with video games.

- *Virtual reality and augmented reality:* These platforms allow for the creation of either entirely new environments for safe exploration and creativity, or an added layer of information, and support, on top of a real-world environment.
- *Artificial intelligence:* There is great potential in building learning environments that record learner responses and then, based on those responses, adapt the presentation of content, including customized real-time tutoring and advice, to personalize instruction to suit learner needs.

The history of reform in this area suggests that certain faculty are highly motivated, confident, and risk-taking in seeking out new technological resources and experimenting with them. Achieving the vision sketched out above means extending this innovative spirit beyond the “early adopters.” Because of COVID, many faculty were required to convert their courses to fully online who had never done so before: some were pleasantly surprised, and some were confirmed in their suspicions that their preferred ways of teaching do not translate well into online or blended modalities. How do we encourage, inspire, and incentivize faculty to rethink their preferred ways of teaching, while respecting academic freedom and faculty control over their own classes? How do we present these reforms as opportunities that can make teaching better and more enjoyable, and not just as one more burden added to an already-challenging faculty workload?

We need to articulate the two principles laid out at the outset as our guiding standard: technology reform is about innovation and improving instruction; and it is about expanding access to learning opportunities for diverse learners, given their diverse situations and needs. These principles are most likely to get broad faculty buy-in.

We need to create a campus culture of creativity and discovery in instruction that includes helping faculty become aware of new technological possibilities and their potential, providing time and resources to develop them, and building a collaborative network of technical support, and peer interactions that foster a community of practice around instructional innovation.

The commitment to a campus culture of creativity and innovation in instruction must also be reflected in our reward systems. Teaching needs to be truly given weight as a factor in merit and promotion and tenure decisions; experimentation and risk-taking need to be explicitly valued and rewarded. For example, the kinds of dramatic changes we are talking about in the method and content of instruction take time, they will often not work smoothly from the outset, and they will not always be welcomed by learners who themselves have to go through an adjustment and learning curve. As a result, student evaluation scores may be lower at first, and glitches and unsuccessful changes may increase frustration. Certainly, every effort must be made to minimize these flaws and their impact—but some of it is inevitable. Our processes for evaluating and rewarding teaching need to take this into consideration.

## Partnerships

The successful transformation of higher education can only be accomplished with innovative coordinated partnerships that mobilize the resources of all relevant institutions, agencies, and organizations. Partnerships are necessary, not only because of the scale of the intended transformation, but also because the diverse aspects of the challenges we face can only be addressed with an equivalent range of institutional identities, capabilities, services,

and perspectives. Nevertheless, engagement alone will not realize transformation. The complex interdependencies and relationships that are at the heart of these challenges require that partnerships be carefully designed and coordinated. The transformation of higher education will require a culture of partnerships where each institution’s distinctive identity and capabilities are recognized.

There are multiple challenging steps to successful transformative partnerships: relevant stakeholders must be identified and engaged, each must understand what they bring to the partnership, and the group must collectively understand how to leverage each partner’s strengths in order to identify and analyze problems and develop strategies that will realize the intended changes. These partnerships must be multilateral: no partner will have all the answers or control, and although the larger common goal is social benefit, all partners must feel that their distinctive potential for contribution has a role in the work of the partnership.

Public postsecondary institutions and high schools provide a powerful system for effecting the transformation of higher education. The mix of similarity and difference among institutions creates unique opportunities for high-impact institutional collaborations. For maximum effect, however, these new interinstitutional partnerships must be based on the identity and capabilities of each partner, aligned with other partnerships, and coordinated with the overarching institutional and state higher education strategies.

All parties must see the terms of a partnership as appropriate to their institutional identity, as well as advancing their contribution to higher education. Because public higher education is often highly decentralized, negotiating, establishing, and sustaining interinstitutional partnerships is challenging, particularly if collaborations are novel. Successful partnerships require coordination, shared understanding, openness, and trust. That in turn requires high-level leadership dedicated to ensuring not only that partnerships achieve the intended social benefits from the different institutional profiles of the partners, but also that partners understand their different institutional missions and strategies and see these as contributing to a sustainable and beneficial partnership.

For similar reasons, dedicated high-level leadership is also needed for partnerships *within* the university. At our institution, academic colleges are often somewhat autonomous with respect to many budget and program decisions, and although this autonomy has generated world class innovation, knowledge production, and education, the disadvantages of decentralization are also evident. Colleges collaborate only modestly with each other or with units at other universities to increase impact, share resources, or to ensure that all existing needs and dependencies are addressed. They are often unable, working individually, to secure the administrative, policy, and technological support needed for effective program development and operation. Independent college initiatives may not always be sufficiently aligned with university strategies to fully leverage institutional strengths and resources. Committed leadership and imaginative strategic planning can address these challenges to effective program development as well as help to develop relationships with other educational institutions, consortia, or external partners that wish to participate or to use curricular materials developed at the university.

External partnerships also have an important role to play in the transformation of higher education. By external partnerships, we refer broadly to all partnerships with institutions that are not academic institutions or consortia of academic institutions. This includes industry partnerships (both large corporations and small businesses), industry associations, professional associations, government agencies, certification or licensing entities, and other

nonprofit organizations. At our institution, two external partnerships exemplify the impact that such collaborative ventures can achieve.

- *Partnership with Coursera:* This partnership has allowed the university to reach distant learners it could not have reached otherwise, provided access to Coursera courses for current students, and generated revenues that can be reinvested. Colleges participating include Gies College of Business, The Grainger College of Engineering, and College of Education, with current total enrollments over 6,000. Stacking strategies that allow students to proceed from nondegree enrollment into a degree program have been developed.
- *Continuing professional education opportunities for professional associations:* Gies College of Business provides a customized analytics course (using existing online course materials) to the Institute of Management Accountants (a global professional association comprised of more than 140,000 members) as continuing professional education and has a similar collaboration with ABRACICON, an accounting education association in Brazil with over 100,000 members.

Innovative high-impact partnerships are essential if we are to transform higher education and realize the 21st century workforce our state deserves. But to be effective, these partnerships must be carefully designed, coordinated with each other, aligned with higher level strategies, and reflect each institution's distinctive identity and capabilities.

## Our Commitment to Transformational Change

Addressing these new areas of need and opportunity will require institutional innovation and reform, for us, and for the postsecondary education sector generally. We believe that universities like ours can take the lead in the transformation of higher education at our institution, in our state, and beyond. We have the capacity and expertise to work collaboratively with a variety of stakeholders to embrace change. At UIUC, we are committed to making this happen.

- We will build synergistic collaborations between traditional and nontraditional providers of education to empower citizens to learn what, where, when, and how, at a price they can afford.
- We will work with our partners to ensure unprecedented access to affordable education across the life course to all individuals regardless of where they live.
- We will engage with employers, industry leaders, and entrepreneurs to identify, develop, and deploy the education and training needed to prepare the workforce of the future and to reskill and upskill existing employees.
- We will harness our extraordinary research and innovation resources and expertise to lead and inspire with new approaches to teaching and learning.

We look forward to engaging with colleagues and institutions across the nation and around the world as we embark on this exciting journey. I am delighted that the AKA has begun to think through how these changes will impact the future of our discipline. As I reflect on the many changes that academic Kinesiology has witnessed across the history of our collected disciplines, I cannot help but be optimistic that we will play an important role in the broadening and transformation of higher education. We have a responsibility to provide continuing access to the scientific advances, and improved clinical practices will that surely arise throughout the professional lives of our graduates. Similarly, we have an obligation to share with members of the public the joys and benefits of physical activity. This is especially important in our increasingly mechanized and sedentary world. Kinesiology programs can and should think beyond the education of our traditional on-campus students; we should strive to reach and embrace new audiences through new platforms and programs. To do less, would be to fail in our responsibility to society. I am both confident and excited about the many ways that AKA member institutions will play a leading role in the new higher education reality.

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