Beyond 2016: Challenges of America's Higher Education

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Abstract

It is a known fact that the world is ever-changing, and as higher education is consistently faced with new challenges, institutions have the option to become active in changing and proactive in responding to changes and new trends. Higher education must respond to many new demands beyond 2016 (Lin, 2016b). The purpose of this presentation is to delineate major challenges which colleges and universities in America are facing today. These challenges are: to control the increasing college costs, to prepare for the skills for the 21st century, to increase retention and graduation rates, to establish strategic international partnerships, and to develop sustainable financial paths and development. The presentation also recommends four major tasks which higher learning institutions must confront with: making college affordable, keeping high retention and graduation rates, internationalizing of higher education, and enhancing meaningful learning environment and life-long learning.

Challenges

It is a known fact that the world is ever-changing, and as higher education is consistently faced with new challenges, institutions have the option to become active in changing and proactive in responding to changes and new trends. Higher education must respond to many new demands beyond 2016 (Lin, 2016b). Areas calling for some of these proactive responses include (1) global challenges in economic, political, and social development; (2) changes of the enrollment landscape increasing diversity (age, gender, and ethnicity) for both students and faculty (issue of inclusion); (3) workforce development and new skill demands in the 21st century; (4) the emerging business model in higher education; (5) the competitive edge in human, capital, and physical resources; (6) increasing globalization and internationalization in higher education through international partnerships; (7) the "innovative disruption" model of quality education delivery in higher education in the Internet+ era; and (8) some controversial issues such as race and free speech dilemmas, campus safety, the STEM (Science, Technology, Engineering, and Mathematics)-versus-humanities debate, and sexual assault on campus. These are some of the pressing issues that higher education leaders must face and find solutions for.

Higher education institutions exist, in part, to encourage people to embrace the idea of change, and students are required to embrace the ever-changing world around them if they want to have any effect on their campus, their community, and the world. With so many challenges in American universities—including limited resources, affordability, and diversity/inclusion, just to name a few—it is imperative that American universities clearly identify the goals and challenges of the higher educational system. Only then we can work collaboratively and efficiently to react to the growing needs, especially in the era of Internet +, and the desired skill base required for students in the 21st century, not only to cultivate them to become global citizens but also to influence and prepare them for career success.

As the world is ever-changing, our educational system must be willing to identify and adapt. It is obvious that there are specific 21st-century skills necessary for students to acquire; therefore, we must begin now to look beyond 2016 to identify challenges, both nationally and internationally, for the higher education system in both present and future.

The **first challenge** is to control increasing college costs. This issue is closely linked with the notion of promoting social equality and opportunity. Unaffordability may deter some talented students from receiving formal higher education. The high cost of American college tuition has prevented not only domestic students but also many high-caliber international students, especially students from China in recent years, from studying in America. Cost has appeared to be one of the key reasons for discouraging joint-degree program students from transferring to their partner universities in the U.S. despite handsome scholarship offers for international students from their partner universities in the U.S. For those who really want to study abroad and don't care about the quality of education they receive, tuition cost would be the priority consideration in choosing a foreign university abroad. The affordability of attending colleges and universities is a top challenge for both domestic and international students.

In addition, about 30–45% of college students are first-generation college students. Higher learning institutions have a special challenge to educate students who have no family history of college-educated professionals. We must let families and students realize that college is an investment that pays off.

The **second challenge** is how to prepare students with the skills to meet future work demands; students must become technology savvy. The Internet of Things (IoT) and the technologies that drive it have shown tremendous impact and disruptions on higher education that we never experienced two decades ago. In this age of big data and endless information, every educational institution must rethink innovative teaching and learning experiences for both faculty and students. Colleges and universities must continue to embrace technology and new ways of teaching and learning if we hope to engage students. The IoT is not only a skill set or a stream of technology or devices; it is also a mindset. It is a set of resource integration and methodology. The IoT paves the way for creativity. We will soon live in the word of the "Smarts"—smart phone, smart home, smart city, and, of course, smart students. Combining education with

technology is not just about bringing learning resources to students but also about leading us to design new ways to evaluate students' learning experiences and outcomes. Traditional measurement may become obsolete. Educational reform should focus not only on revamping the curriculum but also on how to measure the "smart-learning" outcome.

Institutions must be accountable for the overall quality of education they provide. The value of higher education must be reexamined, and students' learning outcomes must be assessed with valid and reliable tools.

The **third challenge** is how to increase retention and graduation rates. Universities and colleges must devise new programs and efforts to assist students to succeed and graduate in a timely manner. It is interesting that international students have a higher average of graduation rates than do domestic American students. It is apparent that motivation for and commitment to higher learning might be one of the key factors for the above-average academic performance among the majority of international students. There are a number of key reasons for students dropping out during one semester or one year of study in college. The reason could be only one, but more often than not, it is a combination of reasons, including financial, academic, social, and family.

Internationalization is the **fourth challenge**. Universities and colleges must establish strategic international partners to bring international students to campus. Internationalization will not only enrich a diversified campus culture but also increase substantial revenue, as most international students pay full tuition—This is especially true for Saudi Arabian students who study in America under King Abdullah's scholarship program (Lin, 2015). Today, almost all universities have an International Partnerships (Strategy) Office to work with academic units, admissions, registrar offices, the International Division, and so on, to promote engagements with countries in different regions and to explore opportunities for establishing strategic international partnerships, to coordinate international collaborations in research and education, to assist students in their experience abroad, and to work on strategies to recruit international students. In addition to enhancing campus diversity with the presence of international students, the tuition revenue from international students in many cases has assisted universities' business models. Recruiting international students presents a different kind of challenge to the Admissions Office. By and large, international students look for two factors: ranking and tuition costs. We need to convince international students (and, more often than not, their parents) that a good match, quality education, and positive learning environment should be their choice path.

The **fifth challenge** stresses that higher education institutions must maintain or develop sustainable financial paths and grow, especially in light of budget cuts in state and federal funding. Universities and colleges must find new ways to promote institutional advancement and adopt a business and accounting model in managing operational funds. Since this financial and budgetary issue is complicated and is also beyond the scope of this paper, a detailed discussion about it will be deferred to a separate paper.

Strategies

    Making college affordable. It is undeniable that higher education faces many global challenges, including economic, political, and social. With diminished affordability, students have less access to higher education. The leaders in higher education are aware of shifting student demographics. As the student population is reduced to those who can afford tuition or are given scholarships from individuals or organizations outside their families, the system of higher education must create new strategies to reflect these new realities.

    Many students who would not typically have the opportunity to afford college have, in the past, been able to rely on state funding to help counter the increasing costs of education in the United States. This is no longer as much of a viable option for students because the funding for higher education from states is shrinking. Universities must find ways to assist students in making their educational aspirations attainable: privatizing student loans, procuring subsidies from state and federal governments, and seeking private funding. There must be a focus on opening the doors to students who would previously have relied on state funding. It is not right that only a limited number of people in the U.S. have access to higher education, and universities need to focus on creating opportunities for all students. Higher education systems need to proactively engage in advancing endowments, building overall philanthropy, and creating partnerships with savvy donors. The more the universities can use scholarships and grants, not loans, to help low-income families, the less the families and their children will have to carry loans while in college and carry the debt well into their work life upon graduation.

    Because of the ebb and flow of finances, universities must now and in the future expect and be prepared for constantly changing costs and revenues. They must begin incorporating the business model. Although it is possible for universities to decrease student costs, it may be at the risk of decreasing revenue. Institutions will need to be intentional about cutting costs while still creating budgets that will lead to both short-term and long-term viability. Following a business model will allow a university to maintain a sustainable and growing financial path. Inside this business model, universities will also need to be proactive about creating the possibility of transferability between universities, allowing students to move course credits more freely among institutions.

    To make college an equity issue in American society, President Barack Obama has brought higher education to the fore over the course of his presidency. Some of his efforts include promoting college attainment, shifting to direct lending, holding for-profit colleges accountable, creating a college scorecard, taking a hard line on sexual assault, and promoting "free" college (Stripling, 2016). These efforts aimed to make higher education "accountable."

    Another issue related to affordability is the transferability of credits between universities within the United States and with foreign universities. As the transferability between universities increases, so do the options that students have as they pursue their goals and dreams. The pros of this transferability far outweigh the possible cons. Universities need not think only of their

institutions' success but also of the successes of the individual students. As their focus changes from isolation to collaboration, universities need not operate with one goal in mind but operate together as a corporation to overcome the many global challenges they are facing. For example, the shifting and declining number of certain international-student segments (i.e., students from Saudi Arabia and from EU countries) to the U.S. will definitely affect tuition revenue for many universities in the U.S. (Lin, 2015).

Keeping high retention and graduation rates. The next strategy for higher education institutions in America is to find the best methods to keep retention rates high. Because of the challenges the changing world places on the educational system as a whole, it is imperative that the system be proactive in creating solutions to attract students. As students enter the higher educational system, however, it is necessary that universities work together on their retention efforts. Even as students enter the university, their desire to stay for the future should increase. It is not enough just to get a student into the classroom—the need is much deeper. Again, the higher educational system must be proactive in creating an atmosphere that leads students to success and keeps them coming back day after day and year after year. It is a tragedy if a student enters higher education only to become discouraged and find that his or her needs are not being met. The rate of students dropping out of college is alarming—but it is also preventable, if the leaders of the higher educational system are intentional about creating a positive, relevant, and engaging environment.

As universities strive to create a climate of retention, one of the most obvious things for them to focus on is enriching campus life. The positive changes that students are faced with on campus will then transfer into the community, and as connections are made both on and off campus, students are more strongly tied to the university, where they are growing, creating meaningful relationships, and actively taking part in making the world around them a little better. It is part of human nature to desire to be valued, to be meaningful, and to make a difference. This student-oriented learning environment is the added value for receiving higher education. When students are automatically placed in an environment where this is all possible, the likelihood of their pushing through any adversity they face in the college setting will dramatically increase. With these connections, students are then pushed to different interests and the need for interdisciplinary learning increases. Students will be "educated" to become well-rounded and to be able to continue their intellectual lives even after graduation. The statement universities should strive to make is that "a college's graduation rate is obviously important—but so is what one learns on the path to graduation" (Roth, 2016, p. B3).

In the digital era, almost every institution is making great strides in using big data, including higher education institutions. Universities and colleges must have some database to understand the state of the institution. Big data such as student performance data will be a good reference for retention rates and for identifying and helping at-risk students. Big data can also be used to

implement adaptive learning techniques so the failure rates can be reduced. Finally, big data will also be an asset for understanding whether hybrid learning will be a better way to meet student needs.

Internationalizing of higher education. Quality of higher education is key to national economic growth and social development, and it has been one of the major national trends and governmental agendas in many emerging countries in the past few years. International education is transformative; it literally changes lives (Lin, 2016b).

Furthermore, education and technology are coming together. We need to change our way of working and thinking. Education is an important national export. Distance learning (with technology as the major dimension) promotes internationalization of higher education. Almost all higher education institutions in America are engaged in some form and scope of international collaboration. Institutions of higher education must have complete commitment to a global strategy to recruit international students and to find long-term, sustainable success with their international partnership programs (Lin, 2015, 2016b). Higher education institutions must embrace the culture of inclusion and diversity, not limiting themselves to the inclusion of the local diversified student population but also embracing students from all nationalities and ethnic backgrounds. We must make the campus a welcoming and supportive place for faculty and students of all backgrounds. Furthermore, we must ask what colleges and universities can do to diversify their curricula. Courses that deal with global cultures and inequality should be integrated to general education core. Courses such as Gender in the Workplace, Racism in America, Leadership across Cultures, and Civic Engagement should be considered part of the multicultural curricula. Internationalization and globalization in higher education go hand in hand. It takes a concerted efforts (team work) to plan, implement, and assess an international project (in most cases, the joint project). Internationalization of higher education is closely linked with interdisciplinary studies and cross-cultural studies. Both studies focus on cultural and global competency. These studies can well be part of the pursuit for campus intellectual life.

Students at the university level will become engaged with the community and their campus, and their academic passions will grow. With this growth comes the possibility of the internationalization of campuses. With this opportunity available, and joined by transferability between universities, students from all demographics are given more opportunity to succeed in following their passions and their dreams to make this world a better place.

Enhancing meaningful learning environments and life-long education. Universities must intentionally create the possibility for interdisciplinary learning, as this is the main way to engage students, create an atmosphere of innovation, and push others toward change.

With the purpose of higher education being to prepare students for their future endeavors and for them to become global citizens, students in the university setting should also be given

opportunities to innovate and become lifelong learners—not just in their specific fields of study but in any topic that could be of interest to them. Students should be given the skills necessary to expand their goals and interests so they can be innovative and adapt as viable citizens in this changing world. Universities need to strengthen their career-preparation curricula so students are better prepared for the world they will soon be completely immersed in.

Their careers as learners should not stop once they walk down the aisle and receive their diplomas. The goal of America's higher education should be to create innovative lifelong learners who have the skills and capacity to thrive in meeting the demands of their future work (Lin, 2016a). Though some may say that once students walk out the door, it is those students' responsibility to stay connected to their alma mater, the truth is that the goal of higher education should be to engage all students before, during, and after their time on campus. Universities should maintain the goal of creating and sustaining partnerships with alumni. They should offer curriculum for alumni. The Chinese proverb "living to old age, learning to old age" points to the essence of lifelong learning and continuing education. The university should have an open-door policy to welcome alumni to be on campus, not just on homecoming day but also throughout the semester.

One of the megatrends in the 21st century is high technology advancement; we live in the world of the IoT. We are working with the digital-device generation (Lin, 2016a). Higher education must adapt to the changing learning environment and the new culture of technology. We must be prepared for the IoT in higher education. The Internet+ education is based on big-data network resources, change from passive acceptance to active hunting, breaking the boundaries of traditional higher education time model, geographical boundaries, and psychological boundaries. From curriculum revision to the delivery of the MOOCs (Massive Open Online Courses), the learning process is no longer limited to the physical classroom space; the open-university concept, lifelong learning, and international collaboration have been around for decades, and they will continue. A successful transformation to a digital classroom involves more interaction, conversation, problem-based lessons, and project-based learning. Colleges and universities must continue to embrace technology and new ways of teaching if they hope to engage students and to make the higher education enterprise more efficient.

Students' cultivation for global citizenship in this world continues long after they leave higher education. When students become alumni of a university, the institution needs to be intentional in connecting with them. This builds rapport, and with this positive overall rapport built among past and present students, the meaning of receiving higher education will become evident, which should be a main focus of higher education.

Who knows what jobs will be born one decade or two decades from now? The world is changing, and the speed of changes is going faster and faster. The changes will affect all walks of life. Some predictable social forces (megatrends)—including globalization, technological developments, demographic changes, environmental crisis and low-carbon developments, urbanization, the rise of the middle class, and individualization—will create new economic

order, opportunities, and challenges for all of us, especially for Millennials (Generation Y). Educators must understand Millennials' subculture (Lin, 2016a).

In *Colleges That Change Lives,* Pope (2006) pointed out that "America's educational system, the envy of the world, is the only one that enables everyone to realize his or her potential" (p. xiii). Pope, through personal interviews with students, alumni, professors, deans, and administrators in 40 colleges, compiled profiles of these "life-changing" colleges. Here are some students' reasons showing us why these colleges are life-changing for them:

- Professors become friends as well as mentors; learning is collaborative instead of competitive.
- Provided me a job in my field; provided me with valuable life skills.
- I have the ability to adapt and thrive.
- I have an integrated sense of where I fit in.
- You're learning how to become confident in your own ability to take control of your experiences.
- Students are on committees with faculty, and they listen; and they're on the Academic Affairs committee.
- The curriculum reflects both the interrelatedness of world issues, and the fact that international education is not just for the few specializing in international studies, nor just those studying off campus, but for all who to be educated in the broadest sense for life in the twenty-first century.
- On race relations, there are some separate interests, but everybody is ready to accept everybody else. It's something we're taught. Consensus is acceptance of differences.
- There is a wonderful sense of community.
- The honors program has a special curriculum and tutorials.
- This university has shown me that accountability, honesty, and hard work are the most important values one can have. It changed my life by making me realize and accept what my gifts were.

These comments and reflections from students truly tell us what the real goals of higher learning. It is not the college, per se, but the type of education a college can provide students that counts.

The reality is that our world is rapidly changing all the time. Higher education institutions must change with it. As we adapt and are intentional about setting goals for 2016 and beyond, we must create learners who will have the capacity to effect great change in the world around them and to appreciate the true and added values of higher education. It is imperative that institutions of higher education be proactive in identifying those challenges, and also in developing strategic plans to cope with and overcome them. To do so, we must ask, "What should the university have in place to help students succeed?" How can colleges and universities change students' lives?" (Pope, 2006). That question must be followed with "How can we ensure that there are action steps in place to make this a reality?" and "Are we preparing students for the workforce?" Many faculty are asking whether the university should be research- or teaching-oriented because a

university's orientation will affect teaching load, resource allocation, curriculum design, and so on. I argue that regardless of whether a university is focused on research or teaching, the question that should be addressed is regarding the fundamental mission of higher learning, i.e., whether the university is providing the most meaningful learning environment and experience that it can for its students. It is, fundamentally, the learning process that shall count for the purpose of education.

Tony Blair, former prime minister of Great Britain, addressed *the Future of State Universities Conference* in Dallas, Texas, on November 19, 2012. Blair made a most insightful statement about the status of higher education: "How do we educate people? Education is absolutely central. There are challenges within the educational system itself. Making change is tough. In education, we really have many difficulties: new structures (new types of school), new ways of working, new skill sets, and new ways of funding, etc." (Blair, 2012). But challenges will also bring new sets of solutions. In other words, universities and colleges must map out strategies to deal and cope with three interrelated aspects of student success in higher education. We must deal with the increasing costs of education attainment. We must find ways to assist students to stay in and finish school, and to assist them with their career plans and to become lifelong learners. These strategies are related to the overall reexamination of the learning process, to learning goals, and to the integration of career preparation as part of learning. Table 1 lists areas for strategic planning for each facet in higher education in 2016 and beyond.

PROACTIVE

- ➢ **Respond to Global Challenges (Economic, Political & Social)**
- ➢ **Respond to Diversity (Gender, Age & Ethnicity) in Academe**
  - ➢ **Respond to Quality Education and Lifelong Learning**
    - ➢ **Respond to Workforce Development**
  - ➢ **Respond to Emerging Business Model in Higher Education**
  - ➢ **Respond to "Innovative Disruption" in Higher Education**
- ➢ **Respond to Increasing Internationalization in Universities and Colleges**
- ➢ **Respond to Competitive Edge (Human, Capital & Physical Resources)**

CHALLENGES

- ➢ **To Control Increasing College Cost**
- ➢ **To Prepare Students with Skills to Meet Future Work Demands**
  - ➢ **To be Accountable for Overall Quality Education**
    - ➢ **To Increase Retention and Graduation Rates**
  - ➢ **To Maintain Sustainable Financial Paths and Growth**
- ➢ **To Prepare Students to Become a Life-Long Learners and Global Citizens**

Table 1. Challenges and Strategies

Cost (Economic, Opportunity & Social Justice Issues)	Learning Process & Learning Goals	Career Preparation

• Increase affordability
• Increase access (educational attainment)
• Reduce student indebtedness
  ◆ Online classes
  ◆ Cost-cutting scholarships
• Respond to shifting student demographics
• Create new strategies for recruitment (domestic and international)
• Respond to shrinking state funding (through privatizing student loans; subsidies from state and federal governments & seeking private funding by working with savvy donors; advancing endowment and philanthropy)
• Adopt business model. While cutting costs will reduce revenue, higher education has to balance the budget.
• Align with university's strategic planning (e.g., Vision 2030; Stanford 2015)
• Increase transferability between universities
	• Increase retention (e.g., strengthen academic success programs for students; include financial and classroom performance, personal issues, etc. in student advising)
	• Enrich campus life
	• Reemphasize effective learning
	• Respond to new modes of learning (e.g., MOOCs, Online1.3, Online2.0, hybrid model, competency-based education)
	• Introduce interdisciplinary programs
	• Create a new learning environment to cultivate students to become innovators (applied researchers)
	• Measure learning outcomes—assess progress and learning goals (creativity, critical thinking, adaptability to change, being good citizens with high civic engagement)
	• Connect with the community
	• Internationalize campus (create innovative curricula, create strategic international partnerships, welcome international students)
	• Restructure of faculty role in for-profit in colleges and universities
		• Meet demands for the future of work (skills necessary to succeed in a rapidly changing global economy)
		• Connect with alumni
		• Assess the value of higher education
		• Increase graduation rates
		• Strengthen career preparation and services for students (e.g., promote industry partnerships to foster career readiness)
		• Prepare for pathways for graduate (advanced) students
		
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超越 2016 年: 美国高等教育的挑战

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摘要

众所周知，世界处于不断变化的趋势中，高等教育也面临许多挑战，但是高等教育机构可以选择积极地改变和应对这些变化以及新趋势。美国高等教育必须面临及克服 2016 年以后（未来的）许多新需求（Lin，2016b）。本讲座的目的是描述美国各学院和大学如今面临的五大挑战。这些挑战包括：控制不断增长的大学费用；培养 21 世纪的技能；提高学生在学率和毕业率；建立战略性国际伙伴关系；以及增强可持续的经费与预算方案和发展。本文还建议高等教育机构如何面对的几个主要任务：使大学生能负担得起学费；保持高在学率和毕业率；使高等教育国际化；以及增强有意义的学习环境和终身学习的意识。

挑战

众所周知，世界处于不断变化的趋势中，高等教育也面临着许多挑战，但是高等教育机构可以选择积极地改变和应对这些变化以及新趋势。美国高等教育必须面临及克服 2016 年以后（未来的）许多新需求（Lin，2016b）。因此美国高校必须采取一些积极的

应对措施，这些领域包括（1）经济、政治和社会发展方面的全球性挑战;（2）增加多元化（年龄、性别和种族）的新生和教师;（3）二十一世纪劳动力发展和新技能的要求;（4）高等教育的新兴商业模式;（5）人力、资本和物质资源的竞争优势化;（6）通过国际合作关系加强高等教育的全球化和国际化;（7）互联网⁺（物联网）时代高等教育质量带来的"破坏性创新"模式;和（8）一些有争议的问题，如种族歧视和言论自由的困境、校园的安全问题、STEM (Science 科学, Technology 科技, Engineering 工程, and Mathematics 数学)与人文科技对立的辩论，以及校园内性侵犯问题等。这些都是高等教育领导者必须面对并解决的一些课题。

在一定程度上，高等教育机构的存在是为了鼓励人们接受变革，如果学生想对他们的校园、社区和世界有任何的影响，他们需要融入并关心他们周围不断变化的世界。由于美国大学面临着诸多挑战，比如有限资源下的可负担性和多元化/包容性，教师和行政人员都必须明确高等教育体系的目标和挑战。只有这样，我们才能协作和有效地应对在物联网时代以及 21 世纪学生所需的技能基础等方面的不断增长的需求。我们不仅需要培养他们成为全球公民，而且还要为他们的未来事业做好准备。

随着世界不断变化，我们的教育制度必须开始有意识的去了解当前的挑战并与之相适应。显然，学生需要获得特定的 21 世纪技能。因此，我们现在必须开始考虑超越 2016 年，积极地面对高等教育系统在国家和国际上的挑战。

第一个挑战是控制持续增长的大学费用。这个问题与促进社会平等和增加教育机会的概念密切相关。负担不起的大学费用可能会阻碍一些有才华的学生接受正规高等教育。美国大学高昂的学费不仅阻碍了国内学生，而且还阻碍了许多高水平的国际学生（其中特别是近年来将出国留学视为奢望的中国学生）。尽管美国的合作大学为国际学生提供了大量的奖学金，但费用似乎仍是阻碍一些在双学位联合办学中美班学生到美国继续求学的关键因素之一。对于那些只想出国留学而不在乎教育质量的学生，学费成为选择国外大学的优先考虑因素。对经济条件不好的学生而言，学费问题则成了上大学与否的考量。

此外，大约 30-45％的美国大学生是第一代大学生。高等教育机构对教育那些没有高等教育背景的学生有特殊的挑战。我们必须让父母和学生意识到上大学是一项可预期有好回报的长远投资。

第二个挑战是如何培养学生的技能，使其满足未来的工作需求。学生必须精通新的技能。物联网（IoT）及其相关技术对高等教育产生了巨大的影响和创新，这是我们二十年来从未经历过的。在大数据和无尽信息的时代，每个教育机构都必须重新思考教师的创新教学和学生的学习经历。如果学院和大学希望招收学生，就必须持续接受技术改革以及新的教学和学习方式。物联网不仅是一个技能集合或一系列的技术、设备，它也是一种心态与概念。它是一套资源的整合和方法论。物联网提升了创造性的机遇。我们将很快生活在

"智能"中——智能手机、智能家居、智能城市以及智能学生。将教育与技术相结合不仅仅是为了给学生带来丰富的学习资源，还要引导我们设计新的方法来评估学生的学习经验和成果。传统的测量可能已经过时。教育改革不仅要重视课程改革，还要关注如何衡量"智能学习"的成果。

高等教育机构必须对他们提供的教育的整体品质负责。高等教育的价值必须被重新审查，学生的学习成果必须用有效和可靠的工具来评估。

第三个挑战是如何提高学生在学率和毕业率。大学和学院必须努力制定新的方案来帮助应届生毕业和成功就业或上研究院。有趣的是，国际学生的毕业率平均水平高于美国本土学生。显然，对高等教育的动机和承诺可能是大多数国际学生优良成绩的关键因素之一。一些学生由于某些特殊原因在学一个学期或一年后退学。原因可能只有一个，但实际上它有更多的原因；这是一个组合性的原因，其中包括经济、课业、社会和家庭等相关问题。

国际化是第四个挑战。大学和学院必须建立战略性国际合作关系，将国际学生带到校园。国际化不仅丰富了多元化的校园文化，而且使美方大学增加了大量的收入，因为大多数国际学生支付全额学费。例如：在 Abdullah 国王（King Abdullah）的奖学金计划下在美国学习的沙特阿拉伯学生尤其如此（Lin，2015）。如今，几乎所有大学都有一个与学术单位、招生处、注册处、国际部等合作的国际合作（策略）办公室，以促进与不同国家的联系，探索建立战略性国际合作的机会，协调国际研究和教育合作，协助学生在国外的体验，以及制定招聘国际学生的策略。除了通过在校国际学生来提高校园多元化外，在许多情况下，国际学生的学费收入也有助于大学的商业模式。招收国际学生对招生办公室有另一种挑战。即一般而言，国际学生看重两个因素：排名和学费。我们需要说服国际学生（以及他们的父母）了解一个配合学生的兴趣和特质、优质的教育、和积极的学习环境应该是他们的选择学校的重要考量而非只关注学校的排名和学费。

第五个挑战有关学校的运作经费与预算。高等教育机构必须保持或增强可持续的经费与预算方案和发展，特别是需要考虑到州和联邦资金的预算削减。大学和学院必须找到新的方法来促进机构发展，并在管理业务及预算方面采用商业模式。由于经费和预算问题很复杂，也超出了本次讲座的范围，关于这一问题将另文讨论。

策略

使学生能负担得起大学费用。不可否认，高等教育面临许多全球性挑战，包括经济、政治和社会。由于学生可负担学费的个人能力降低，学生获得高等教育的机会减少。高等教育领导者意识到了学生人口的变化。由于学生人口减少到只针对于那些能够负担得

起学费或从家庭以外获得奖学金的人，高等教育制度必须制定新的策略来应对这些新现实。这也是促进社会平等的一个概念。

那些通常负担不起大学费用的学生，在过去能够依靠国家资助来帮助应对在美国日益增加的教育成本。对于学生来说，这已经不再是一个可行的选择，因为国家高等教育资助学生的资金正在缩减。大学必须找到其他方法来帮助学生实现他们想获得教育的愿望：使学生贷款私有化，从州和联邦政府获得补贴，并寻求私人资金。大学应该对那些曾经依靠国家资助的学生打开大门。美国只有少数人能够接受高等教育的现象是不值得提倡的，大学需要专注于为所有学生创造机会。高等教育体系需要主动参与推进捐赠资金，建立整体慈善事业，并与慈善的捐助者建立伙伴关系。如果大学越多的使用奖学金和助学金来帮助低收入家庭（而不是贷款），父母和他们的孩子在大学期间承担的贷款就会越少，并能够在毕业时将债务充分运用到他们的工作生活中。

由于经济的衰退和流动，美国大学必须在现在和未来为不断变化的成本和收入做好预测和准备。他们必须开始整合商业模式。虽然大学可以降低学生的费用，但同时他们也会面临收入降低的风险。不管是长期或短期的，教育机构需要在策划减少学生费用的同时仍然去觅求能使财务平衡的一些资源。这对私立学校而言，它更是一个大挑战。遵循商业模式将允许大学保持可持续发展的财务道路。在这种商业模式中，有一项与降低学生学费重复负担的是各校间的转学安排。大学还需要积极主动地创造大学之间转学生的可能性，允许学生在不同大学之间更自由地转换课程学分。（注：转学生要修补的学分少了，相对的在转学后也省交了一些学费。）

美国大学和国外大学之间的学分转换是另一个与可负担性相关的问题。随着大学之间的转学性增加，学生在实现他们的目标和梦想时的选择也会增加。这种可转学性的优点远远超过潜在的缺点。大学不仅需要考虑学校的成功，还需要考虑个别学生的成功。随着他们的焦点从孤立到协作，大学不应只考虑单向目标，而应像去经营一家公司，设定长期和短期目标，以克服他们面临的许多全球挑战。例如，某些国际学生（即来自沙特阿拉伯和欧盟国家的学生）到美国的转换和数量的减少肯定会影响美国许多大学的学费收入（Lin，2015）。

为了使人们有机会均等（公平）地接受高等教育，Barack Obama 在他担任总统期间将高等教育视为重中之重。他的一些努力包括促进大学教育发行直接贷款，提高营利性大学对社会的义务，创建大学评估记分卡，强调阻止性侵犯行为的重要性以及促进"自由"学院的发展（Stripling，2016）。这些努力旨在使高等教育更能负起一个民主社会的责任。

保持高学生在学率和毕业率。美国高等教育机构的下一个策略是去探讨能找到保持高校学生在学率的最佳方法。由于不断变化的世界对整个教育系统的挑战，系统必须积极

主动地创建解决方案来吸引学生。然而，当学生进入高等教育系统时，大学必须一起为较低（的）学生辍学率付出努力。即使学生进入大学，他们对未来的渴望也应该增强。仅仅让学生进入教室是不够的，因为他们将有更多的需求。如果一个学生进入高等教育后变得灰心并发现他/她的需求没有得到满足，那么教育是失败的。如果高等教育的领导者有意创造一个有积极意义和吸引力的环境，学生辍学率高的问题是可以预防的。

随着大学努力创造的学生在学的氛围，丰富校园生活是他们最重要的任务之一。学生在校园里面临的积极变化将转移到社区，随着校园内外的联系的增强，学生与他们成长的大学更紧密地联系在一起，他们在那里成长，建立有意义的关系，并积极参与发展他们周围的世界。渴望被重视，有意义和有所作为是人类本性的一部分。这种以学生为本的学习环境是接受高等教育的附加值。当学生被自动置于这样的学习环境中时，。通过这些联系，学生将培养不同的兴趣，跨学科学习的需求也随之增加。学生通过"教育"全面发展，并能够在毕业后继续学习。大学应该在努力保持高学生毕业率的同时，重视学生在毕业之路上学到的知识（Roth, 2016, p. B3）。大部分的大学都设有"成功中心"以协助学生各种有效的学习方法与提供学生校内及校外的支持系统。

在数字时代，几乎每个机构都在使用大数据方面突飞猛进，包括高等教育机构。大学和学院必须利用一些数据库来了解机构的状态。大数据（如学生成绩数据）将是学生在学率以及识别和帮助有困难的学生的良好参考。大数据也可以用于实现自适应学习技术从而降低故障率。最后，大数据在了解混合学习是否能更好的满足学生需求的方面也将是一项资产。

高等教育国际化。高等教育品质是国家经济增长和社会发展的关键，在过去几年中，它已成为许多新兴国家的主要国家发展趋势和政府议程之一。国际教育是变革性的；它深深影响了人们的生活模式（Lin，2016b）。

此外，教育和技术相结合。我们需要改变我们的工作和思维方式。教育是一项重要的国家出口。远程学习（以技术为主要内容）促进高等教育的国际化。几乎所有的美国高等教育机构都在从事某种形式和范围的国际合作。高等教育机构必须完全致力于创建全球战略，以招聘国际学生，并通过其国际合作计划取得长期、可持续的成果（Lin, 2015, 2016b）。高等教育机构必须接纳多元化和有包容性的文化，在纳入当地多元化的学生群体（性别、宗教、经济地位等）的同时也应包括来自其他民族和种族背景的学生。我们必须使校园成为接纳和支持来自不同背景的教师和学生的地方。此外，我们必须要思考：高校可以设计何种项目及课程来使学生的学习经验多元化。处理全球文化和有关不平等议题的课程应纳入普通教育核心是其途径之一。例如女性职场、美国种族主义、跨文化领导力和公民参与等应被视为多元文化课程的一部分。高等教育的国际化和全球化相辅相成。这需要齐心协力（团队合作）地策划、实施和评估一项国际工程（在大多数情况下，国际合

作项目）。高等教育的国际化与跨学科、跨文化研究密切相关。这两个研究都侧重于文化和全球竞争力。这些研究很可能是校园知识生活的一部分。

大学水平的学生将投身于社区和他们的校园，同时他们的学术热情也会随之增强。这一增长加强了校园国际化的可能性。这些社区服务的机遇和大学之间的可转移性将使所有学生有更多的机会因追随他们的激情和梦想而成功，以此创造一个更好的世界。中国是促进高校国际化很积极的国家。中国与美国许多高校有各种不同的合作项目，它间接的影响了一些美国高校的发展 (Lin，2016b)。

增强有意义的学习环境和终身教育。大学必须有意地创造跨科技学习的可能性，因为这是吸引学生、创造革新氛围、推动他人走向变革的主要方式。

为了让高等教育成为未来学习的基石，让学生成为全球公民，大学学生还应该被给予机会去创新并成为终身学习者。这不仅仅是在他们特定的学习领域，而且还应是任何他们可能感兴趣的话题。学生应该获得必要的技能来扩大他们的目标和兴趣，因此他们可以在这个不断变化的世界中生存、创新。大学需要加强他们的职业生涯准备课程，使学生更好地为他们即将完全投入的新工作世界做好准备。

学习不应在获得文凭之后便停止了；终身学习（活到老学到老）才是高等教育培养人才与人才持续成长的宗旨。美国高等教育的目标应该是培养具有创新意识的、丰富技能和能力的终身学习者，以满足他们对未来工作的需求（Lin，2016a）。另外，高等教育系统必须积极主动地创造一种引导学生成功的氛围，鼓励他们时常回母校与母校保持密切的联系。虽然有人可能会说，学生一旦走出校门应有责任保持与母校的联系，但事实是，高等教育的目标应该是时刻吸引学生，无论是在他们进入学校之前、学习期间或者在毕业之后。大学应该遵循与校友建立和保持伙伴关系的目标，以及为校友提供课程。如上所述，中国谚语"活到老，学到老"指的是终身学习和持续教育的本质。大学应该有一个开放的政策，在整个学期期间欢迎校友回校，而不仅是在校庆返校日而已。

我们生活在物联网的世界中，高科技进步是 21 世纪的大趋势之一。我们正在与数据化并肩合作（Lin，2016a）。高等教育必须适应不断变化的学习环境和新的技术文化。我们必须为高等教育中的物联网做好准备。互联网+教育基于大数据网络资源，从被动接受转变为主动涉猎，打破了传统高等教育的时间限制、地理边界和心理边界。从课程修订到交付 MOOCS（大规模在线课程），学习过程不再局限于物理教室空间。开放大学的概念、终身学习和国际合作已经存在了几十年，此潮流将继续。数字化课堂的成功转型涉及更多的互动、交谈，以及基于问题的课程和基于项目的学习。如果大学和学院希望吸引学生和提高高等教育企业的效率，它们必须继续接纳科技和新的教学方法。

学生对全球公民意识的培养在他们离开高等教育后还会持续很久。当学生毕业成为校友的时候，学校需要有意地与他们保持联系。这促进了融洽关系的建立，并且伴随着过去

和现在学生建立的整体关系，接受高等教育的意义将变得愈加明显，这同时也是高等教育的一个主要焦点。

谁知道在十年或二十年之后会新增什么工作？世界正在改变，变化的速度越来越快。这些变化将影响各行各业。一些可预测的社会力量（大趋势）将为尤其是千禧一代（Y 世代）的所有人创造新的经济秩序、机会和挑战，其中包括全球化、技术发展、人口变化、环境危机、低碳发展、城市化、中产阶级的兴起和个体化。因此教育者必须了解千禧一代的亚文化（Lin，2016a）

在 *Colleges That Change Lives* 中，Pope（2006 年）指出，"令世界羡慕的美国教育制度是唯一能使每个人都能实现他/她的潜力的驱动力"（p. xiii）。 Pope 通过对 40 所大学的学生、校友、教授、院长和管理人员的个人访谈，汇编了这些"改变生命"的学院的简介。下面这些是学生向 Pope 展示的关于大学改变他们生活的原因：

- 教授成为朋友和导师; 学习之间互相协作而不只是竞争。
- 根据我学习的领域给我提供工作机会，同时也为我提供了宝贵的生活技能。
- 我有能力适应和发展。
- 我深知自己适合的地方。
- 我正在学习如何自信地利用自己的能力对经历加以控制。
- 学生在教师委员会听取意见。我们加入了学术事务委员会。
- 课程反映了世界问题的相互关联性，以及国际教育不仅仅是专门针对那些研究国际教育的少数人，或者那些在校外学习的人，而是所有在二十一世界接受教育的人。
- 在种族关系上虽然有一些利益差异，但每个人都准备着接受其他人，这是我们所学到的。共识意味着接受差异。
- 有一种极好的社区意识。
- 荣誉项目包括特殊的课程和指导。
- 这所大学向我表明了责任心、诚实和勤奋是最重要的价值观; 它改变了我的生活，让我意识到并培养我的天赋。

学生的这些评论和反思真实地告诉我们高等教育的真正目标。这不是针对于学校本身，而是学校可以为学生提供的教育类型。

事实上，我们的世界正在迅速改变。高等教育机构必须随之改变。随着我们适应和有意设定 2016 年及以后的目标，我们必须培养那些有能力影响他们周围世界变化以及为高等教育提供附加值的学习者。高等教育机构必须积极主动地识别这些挑战，并制定能够应对和克服这些挑战的战略计划。为此，我们必须思考："大学应该如何帮助学生取得成功？""学院和大学怎么能改变学生的生活？"（Pope，2006）。这些问题必须遵循"我们如何确保现有的方案能够实现这个目标？"和"我们是否在帮助学生为未来工作做准备？"许多教师都在询问大学应该是以研究为主还是以教学为主，因为大学的导向会影响教学工作量、资源分配和课程设计等。我认为无论大学是专注于研究还是教学，高等教育

的根本使命是应该学习导向的，即大学是否为学生提供最有意义的学习环境和经验。从根本上讲，教育目的是学习过程。

2012 年 11 月 19 日，英国前首相 Tony Blair 在达拉斯（位于德克萨斯州）举行的大学未来国家会议上发表演说。Blair 对高等教育的现状提出了最有见地的说法："我们如何教育人们？教育绝对是最重要的。教育系统本身存在挑战；改变是艰难的。在教育方面，我们真的有很多挑战：新结构（新型学校）、新的工作方式、新的技能和新的资助方式等。"（Blair，2012）。但挑战也将带来新的解决方案。换句话说，大学和学院必须制定策略来应对和处理高等教育学生成功的三个相互关联的方面。我们必须处理日益增加的教育费用。我们必须找到方法来帮助学生在校学习和完成学业，并帮助他们完成职业规划以及培养他们成为终身学习者。这些策略与整体复审的学习过程、学习目标以及作为学习一部分的职业规划有关。表 1 列出了(以英文原文列出)2016 年及以后高等教育各个方面的战略规划领域。

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