

“The Role of Higher Education as a Pathway to Prosperity: Technology as a Catalyst for Educational Reform”

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Introduction:

The evolution of American Higher Education is a complicated romance with many dimensions. Universities in the U.S. have always had a significant hold on our citizens' imagination. Higher education in the U.S. is a central element in the emergence and well being of the nation. A close analysis of the evolution of higher education in the U.S. reveals strategic junctions and times of significant challenges. In each era, academic institutions were responsive, action was taken and higher education was strengthened. The current calls to reevaluate undergraduate education are consistent with that pattern. Many universities, organizations, accreditation bodies, governments and researchers are engaged in comprehensive reviews and active efforts to “reinvent undergraduate education.” Much discussion and debate is taking place pertaining to the need to facilitate a “new model of undergraduate education.” The study of the current challenges will benefit greatly by examining universities as open systems – dynamic organisms shaped by and shaping the environment. It is also true, nonetheless, that unique features of each university must be taken into account. It is the unique structure, mission, role and value of each university, understood in the context of the changing environment, which will allow us to address the challenges, maximize the opportunities and also develop an enhanced vision for the undergraduate experience. It's a time of significant change and great opportunities for those who have an interest in shaping the future of the undergraduate experience. Like any successful journey of exploration, much is unknown and the journey requires leadership, values, teamwork, committed people, supplies, planning, training, and a deep belief in the value of the journey and the significance of reaching the destination.

The purpose of my presentation is to place the current challenges we face in undergraduate education in their internal and environmental contexts and to introduce the dimensions of the opportunities we can develop in order to remain as institutions of excellence as meaningful intellectual and socio-economic enterprises. In my presentation, I will address the challenges and opportunities facing undergraduate education in the 21st Century. While doing so, I will:

1. Identify and address the critical factors, qualities and characteristics that distinguish truly exceptional undergraduate experiences.
2. Explore the question of what determines an outcome of an exceptional undergraduate experience.
3. Recognize what can be done to lead an effort to enhance these qualities.

It is crucial to emphasize that while many of the challenges that I will discuss are of value and impact in one way or another all institutions of higher education, each institution will have to address these challenges based on its own mission and educational goals and objectives. Therefore, generalizing has its limits.

- I. **The Challenge of Intentionality and Coherence: How do we enhance the** undergraduate experience so that a student graduates with an outcome which is greater than a collection of courses and independent experiences? Or as Richard Light put it, "Making the Most of College.... Shaping Students' Overall Experience." This comprehensive approach fits the words of John F. Kennedy who said: "*Remember that our nation's first great leaders were also our first great scholars.*"

We need to enhance a sense of intentionality and coherence in our expectations. How can we engage in curricular efforts to enhance cumulative, integrated, coordinated learning across disciplines and General Education? We are challenged to better define what are students expected to accomplish/experience/learn and know and how do we provide/deliver/facilitate this outcome in the most intellectual, supportive, effective and efficient manner.

1. **Knowledge and Understanding** - What content, knowledge and experiences do we expect our students to have? That includes academic learning inside the classroom and extracurricular activities.
2. **Competency, Attributes and Skills** that are transferable – what skills do we expect our students to enhance, acquire and develop during their experience as an undergraduate? How do we assure such learning takes place across the curriculum?

These skills could include: capacity for critical thinking; ability to engage in reasoned discourse; intellectual sophistication; ability to marshal and evaluate evidence – cognitive capacity; communication skills (writing and oral) and leadership; team work and collaboration; analytical reasoning; problem solving; research skills; foreign language skills; computer literacy; inductive reasoning; deductive reasoning.

3. **Educating Citizens*** In addition to enhancing knowledge, subject matter and competencies, we have an obligation to educate citizens. That could include: citizenship and civic engagement; political engagement; civility; multi cultural sensitivity and understanding; ability to co-exist in a diverse society and a global reality; values; ethics; preparing students for a rewarding and meaningful career and life.

*Taken from the title of a book by Colby, Ehrlich, Beaumont and Stephens

- II. **Increased Demand for Accountability and Transparency:** This will result in the development and implementation of better instruments* to measure and assess learning outcomes. As a result, transparency will increase and so will collaboration among institutions. Increased accountability will result in recognition by the State and the Federal government of the need to measure and recognize qualitative efforts such as "educating citizens."

* One valuable instrument is the Collegiate Learning Assessment (CLA). The 2005 U.S. Secretary of Education's Commission on the Future of Higher Education features the CLA as one of the most promising new approaches to

assessing a wide variety of learning outcomes

- III. **Maximize Students' Potential for Success - Enhance Retention and Graduation** - Attracting and retaining the best undergraduate students in the nation and sustaining a diverse racial, cultural and ethnic minority requires addressing critical measurable variables of success. These include: graduation rates; retention rates; an excellent and diverse student body. This means that we must pay special attention to coordinating retention strategies, improved degree completion, reevaluate first-year programs, enhance academic advising and advising interventions with specific student populations who are at risk, support the honors program, support and facilitate early match and fit of students to majors, evaluate the learning support that is available, ensure course availability, and examine the curriculum to determine how current and relevant our offering is. We must also develop policies that support progress and degree completion, enhance tutoring programs, mandate course placement testing and reduce class size. Most importantly, we follow what Habley and McClanahan suggest: "Implement, measure, improve!"

- IV. **Adjust Pedagogy, Space and Policies to the Needs of the Millennial Generation** - (interactive, multitasking, team and group work, active and interactive learning, short attention span, a pressure to succeed) while acknowledging the needs of other learners (older, diverse, international). This effort will require experimenting with new learning approaches based on utilizing new pedagogy, knowledge and technology. Recent surveys* suggest increases in social and political interest and higher level of political participation. It was Albert Einstein who asserted that: *"It is, in fact, nothing short of a miracle that the modern methods of instruction have not entirely strangled the holy curiosity of inquiry."* and he added that: *"It is a miracle that curiosity survives formal education."*

*UCLA's Higher Education Research Institute (HERI), 2005 survey of college freshmen.

- V. **Address the Demographics and Characteristics of the Changing Faculty Body** and understand how changing expectations, behavior, interest, career and goals will impact the undergraduate experience. Replacing retiring faculty and hiring additional faculty will impact universities in fundamental ways. This requires adjustments in policies, expectations, rules, space and faculty development (Dick Chait and his colleagues at the School of Education, Harvard).

- VI. **Address the Needs of Students with Increasingly Different Levels of Preparation to Assure Success.**

- VII. Develop and Enhance Structure, Policies and a Culture that Allows the Undergraduate Experience (curriculum and extra-curriculum) to Adjust and be Responsive in a Timely Manner** to rapid changes in our social, economic, technological and political environment and to shifting opportunities. We must value flexibility in responding and promote culture of continuous innovation.
- VIII. Resource Management and the Challenge of Scarcity of Resources**
- IX. The Increase in Cost of Higher Education and the Impact it has on Affordability and on Students' Behavior (work, living space).** The challenge is to enhance opportunities and services while understanding the impact it has on cost and opportunity for access (especially for low-income students).
- X. Enhance Efforts to Increase the Diversity of the Student Body (ethnic, cultural, socio-economic, religious)** and enrolling students who are members of diverse racial, cultural, ethnic or religious minority groups.
- XI. Increase Efforts to Internationalize the Student Experience.**

Closing Thoughts: The academic undergraduate education is one of the most valuable “institutions” contributing to our well being as individuals, a society, a nation and a global community. It is facing serious challenges and unique opportunities to transform it so it will continue to be the vital and fundamental force it has been in serving individuals and a public good. Responding to these challenges will allow us to follow the vision of Benjamin Disraeli who said: *“A university should be a place of light, of liberty, and of learning.”*