CHANGING EDUCATION: REDESIGNING THE UNDERGRADUATE EXPERIENCE

Project 2021 and the Faculty Innovation Center
The University of Texas at Austin

March 30, 2017

A growing number of leading universities are rethinking the delivery and design of undergraduate education. At The University of Texas at Austin, a new strategic initiative called Project 2021 is hosting this symposium to highlight the innovative work being done here and at other R1 universities on transforming undergraduate education to meet the needs of a digital, mobile, and continually evolving society.

This symposium, organized by the University's Faculty Innovation Center, presents new approaches to redesigning undergraduate education, in a format that includes keynote presentations punctuated by short talks and plenty of time for discussions in breakout sessions. The organizing themes are intended to connect high-level concepts and developments with institutional decisions and instructional practice:

- **Leveraging technology:** How to engage faculty in adopting digital teaching tools and delivery platforms that can educate at scale and provide flexibility without sacrificing quality.

- **Using evidence-based assessments and analytics:** Collecting and analyzing data to guide change.

- **Redesigning curricula and scaling innovation**: Methods for redesigning students' degree pathways, incorporating experiential learning, and changing the infrastructure of the 21st century public research university.

We invite you to lend your voice to what we anticipate will be rich conversations about curricular design and student experiences in the 21st century.

<h1 style="text-align:center">PROGRAM SCHEDULE OVERVIEW</h1>

8:00   **Registration and Continental Breakfast**

8:30   **Welcome and Framing the Day**

9:00   **Keynote:** *Changing Higher Education*

9:45   BREAK

10:15   **Breakouts**

1. Leveraging technology: *Who gets to learn?*
2. Assessment and analytics: *Using technology to give students feedback*
3. Redesigning and scaling: *Design thinking and the entrepreneurial mindset*
4. Redesigning and scaling: *Curriculum redesign: Re-evaluating the heirlooms*

11:30   LUNCH

1:00   **Plenary:** *Redesigning Curricula*

1:45   BREAK

2:15   **Breakouts**

5. Leveraging technology: *Remote proctoring*
6. Assessment and analytics: *Measuring success of a class and a curriculum*
7. Redesigning and scaling: *Bending the infrastructure: Driving educational innovation in a traditional educational environment*

3:15   BREAK

3:45   **Breakouts**

8. Leveraging technology: *Large online classes: Many flavors*
9. Assessment and analytics: *Rethinking course instructor surveys*
10. Assessment and analytics: *Using big data*
11. Redesigning and scaling: *Moving beyond grades: New currencies to recognize and validate learning*

5:00   **Takeaways and Reception**

Be sure to visit the posters in the central hallway; they present projects and initiatives by UT Austin's Provost Teaching Fellows.

8:00   **Registration and Continental Breakfast**

8:30   **Welcome and Framing the Day**

Rm 207   **Maurie McInnis**, *Executive Vice President* and *Provost, UT Austin*, and **James Pennebaker**, *Executive Director*, *Project 2021*

9:00   **Keynote**

Rm 207   **Changing Higher Education**: How do we help college students become happy, successful, 21st century citizens*?*

     Arthur Graesser, *Professor of Psychology and the Institute of Intelligent Systems, University of Memphis,* and **George Siemens**, *Executive Director, Learning Innovation and Networked Knowledge (LINK) Lab, UT Arlington*

     Higher education is being radically transformed by big data analytics and intelligent, adaptive, digital environments that immediately respond to students as they learn and live. Digital learning technologies are absolutely essential for students to be proficient in self-regulated learning, communication, collaborative problem solving, reasoning, career planning, and other skills of the 21st century.

9:45   BREAK

10:15   **Breakouts**

Rm 206   *1.* Leveraging technology*: Who gets to learn?* – **Julie Schell**, *Director of OnRamps & Strategic Initiatives, UT Austin,* and **Janet Walkow**, *Executive Director & Chief Technology Officer, Drug Dynamics Institute*, *UT Austin*

     "Who gets to learn?" is an enduring question in higher and postsecondary education. Today, the boundaries of the residential campus are falling away and transforming the university into a digital global learning community. Technology makes this possible, providing an agnostic channel for extending learning beyond the classroom walls and for erasing educational elitism.

Rm 208   *2.* Assessment and analytics: *Using technology to give students feedback* – **Arthur Graesser**, *Professor of Psychology and the Institute of Intelligent Systems, University of Memphis,* and **James Pennebaker**, *Executive Director, Project 2021, UT Austin*

     Courses of today and the future can deliver immediate feedback to the students on their learning and creations. This includes feedback on their answers to questions, essays, solutions to problems, digital chat conversations with peers, actions in virtual environments, and even career planning.

Rm 210   *3.* Redesigning and scaling: *Design thinking and the entrepreneurial mindset* – **Doreen Lorenzo**, *Director, Center for Integrated Design, UT Austin,* and **Bob Metcalfe**, *Professor of Innovation, Department of Electrical & Computer Engineering, UT Austin*

Today, businesses recognize the value of design thinking as a key differentiator. They have embraced it to solve their problems. We must ensure that the next generation of students understands the importance of design and creativity as a key to success. We also must persuade students to engage with innovation early, by doing research and adopting the entrepreneurial mindset — the better to connect the world's problems and solutions.

Rm 204 *4.* Redesigning and scaling: *Curriculum redesign: Re-evaluating the heirlooms* – **Sue Cox**, *Executive Vice Dean for Academics, Dell Medical School, UT Austin,* and **Hillary Hart**, *Director, Faculty Innovation Center, Project 2021, UT Austin*

Which is easier: Starting from scratch to redesign an antiquated 100-year-old curriculum for a new medical school or redesigning a curriculum currently in place? Not easy to answer … In both cases, the key is motivating the education team for change … but how?

11:30 LUNCH

1:00 **Plenary**

Rm 207 **Redesigning Curricula**: Evidence-based approaches - **Matthew Kaplan,** *Executive Director, Center for Research on Learning and Teaching, University of Michigan,* and **Chantal Levesque-Bristol,** *Director of Instructional Excellence, Purdue University*

Universities are investing resources into programs that promote curricular change. We will present two models for this work. The first is a large-scale campus-wide course transformation program, based on research on student learning, that has developed a rich repository of results. The second is a customized approach to helping academic units make data-driven decisions about the curriculum in advance of or after they undertake revisions.

1:45 BREAK

2:15 **Breakouts**

Rm 206 *5.* Leveraging technology*: Remote proctoring* – **Marla Gilliland**, *Director of Course Development, Development Studio, Project 2021, UT Austin,* and **Ken Tothero**, *Instructional Design Project Director, Project 2021, UT Austin*

As more and more learning takes place online, the question of how to ensure the integrity of assessment looms large in the minds of both students and instructors. Hear about approaches being piloted here at UT Austin and the balance between academic integrity and privacy that is a central concern.

Rm 208 *6.* Assessment and analytics: *Measuring success of a class and a curriculum* – **David Troutman**, *Associate Vice Chancellor for Institutional Research Decision Support, UT System*, and **Toni Wegner**, *Chief Operating Officer, Project 2021, UT Austin*

Students can take an infinite number of pathways to achieve a degree that will prepare them for the future. This discussion explores objective measures of

students' academic and post-collegiate success in the context of their classes and curriculum, as well as their backgrounds and extracurricular activities.

Rm 210   *7.* Redesigning and scaling: *Bending the infrastructure: Driving educational innovation in a traditional educational environment* – **Tom Black**, *Registrar, Stanford University*, and **Shelby Stanfield,** *Registrar, UT Austin*

Traditional educational models are based on long-standing assumptions, practices, and byzantine compliance requirements that cannot be easily changed and cannot be ignored. But these models stymie innovation and new education delivery models. So, how do we bend the infrastructure to allow innovation?

3:15   BREAK

3:45   **Breakouts**

Rm 206   *8.* Leveraging technology: *Large online classes: Many flavors* – **Jeff Hellmer**, *Professor, Butler School of Music, UT Austin*, and **Rob Moser**, *Professor and Chair, Department of Government, UT Austin*

Online classes are part of the new educational landscape. What are the opportunities and challenges associated with building and teaching successful online courses?

Rm 208   *9.* Assessment and analytics: *Rethinking course instructor survey*s – **Maura Borrego**, *Associate Professor, Department of Mechanical Engineering, UT Austin,* and **David Yeager**, *Assistant Professor, Department of Psychology, UT Austin*

Who doesn't agree on the need to improve course instructor surveys? We will consider alternative data sources and analyses, including, but not limited to, learning assessments, performance in subsequent courses, graduation rates, peer evaluations, and other sources of evidence.

Rm 204   *10.* Assessment and analytics: *Using big data* -- **Amin Qazi***, Chief Executive Officer, Unizin*, and **George Siemens**, *Executive Director, Learning Innovation and Networked Knowledge (LINK) Lab, UT Arlington*

Many universities are working with large data sets to understand learner profiles and in support of labor market and higher education needs. But the students are also consumers of those data. What is a student's role in an educational environment where the pedagogy is informed by a data-centric learning ecosystem that seeks to personalize learning by customizing digital materials?

Rm 210   *11.* Redesigning and scaling: *Moving beyond grades: New currencies to recognize and validate learning* -- **Marni Baker-Stein**, *Chief Innovation Officer*, and **Steve Mintz**, *Executive Director, Institute for Transformational Learning, UT System*, and **Phil Long,** *Chief Innovation Officer, Project 2021, UT Austin*

Competency badges and other micro-credentials offer an innovative way to motivate learning and verify mastery.

5:00   **Takeaways and Reception**