Changing Demographics and Digital Transformation

By Ted Mitchell
TODAY IT IS FASHIONABLE ONCE AGAIN (THIS OCCURS APPROXIMATELY EVERY THIRTY YEARS) TO PREDICT THE DEMISE OF COLLEGES AND UNIVERSITIES.

I want to state right off that I am not even tempted to leap on that bandwagon. My prediction is that the next generation of higher education will be vibrant, thriving, and more important than ever to US social and economic progress—not because the sector will have remained the same but precisely because the opposite will have happened. Through changing demographics and digital transformation, the sector will have evolved in important ways.

And it has ever been thus. Ours is a sector that has responded to, and often driven, change. I began my career at a campus that started accepting women students only in 1976. The Civil Rights movement in the United States, with important roots in colleges and universities, was both cause and consequence of opening campuses to people of color. One hundred years earlier, in the midst of the Civil War, Justin Morrill and Abraham Lincoln created a whole new kind of institution: the land-grant college. And at the founding of the republic, George Washington, John Adams, and others insisted that higher education should break from its European moorings to serve not only the nation’s purpose but also individual or sectarian interests.

We’ve done it before, and we are doing it again. The imperative for change is all around us. It’s not coming just from the headlines or the pundits, although those pundits would like us to believe that they are the ones who are pushing us to change. Now the imperative for evolution in US higher education is driven from that most authentic of sources, our students. As in so much else, our students are majority-minority: one hundred years earlier, in the midst of the Civil War, Justin Morrill and Abraham Lincoln created a whole new kind of institution: the land-grant college. And at the founding of the republic, George Washington, John Adams, and others insisted that higher education should break from its European moorings to serve not only the nation’s purpose but also individual or sectarian interests.

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Second, if we look ahead, and not even that far ahead, we see the most profound demographic shifts to impact the United States over the last century as we become a majority-minority nation:

- The K-12 system is already majority-minority.
- California, Texas, New Mexico, Nevada, and Hawaii are majority-minority states.
- By 2050, the workforce will be about 55% people of color.

Let’s think of this first as a math problem. To educate the citizenry and the workforce of tomorrow, we simply must create policies, practices, and institutional cultures that embrace equity and that, in particular, make the persistent achievement gaps between white students and their peers of color a thing of the past. Let’s broaden our lens a bit. We must erase access and success gaps for low-income students, first-generation students, and rural students if we are to thrive as a nation.

Let’s also think of this as a moral problem. To have the diverse, prosperous democracy that is at the root of our sense of nationhood, we must understand equity and diversity to be a must-have, not a nice-to-have. Equity and diversity are not gifts that higher education institutions
As in so much else, our students will lead us—if we have the will and the tools to listen. All around us, we are seeing shifts in the nature and character of our students.
impert to somebody else. They are the ways in which we become better, stronger, and fuller advocates for our highest aspirations. They are the ways in which we create better thinkers, individuals with stronger communication skills, and more-creative problem solvers. Equity-minded leadership, at all levels of the institution, will be critical in leading us forward.

Third, the majority of our students are fully digital natives. They have grown up not only with digital entertainment, communication, and communities but also with digital learning and services. Children’s Television Workshop began in 1968, and the television series *Sesame Street* premiered in 1969. By 1981, faculty and students at institutions across the country were connecting to each other and with their students by e-mail. The Free Application for Federal Student Aid (FAFSA) went online in 1997. LeapFrog began shipping learn-to-read tablets (the LeapPad) in 1999. By 2009, 80 percent of college applications were made online. Our students, whether they are eighteen or thirty-five, have lived through these milestones. Even if they don’t remember them, they have been impacted. As a result, they expect and accept that technology will be an important and helpful part of their college/university experience.

Fourth, we need to understand our institutions and digital transformation through the eyes and the realities of our students—not just through their demographics but through the context in which they live now and will live in the future. Insecurity weighs on them, and it’s not a short-term phenomenon. Students worry, for good reasons:

- Income inequality is separating haves and have-nots in ways not seen since the Gilded Age.
- Job displacement or the threat of job displacement hangs over every college/university student.
- Most students will work in jobs, if not industries, that haven’t been invented yet. How can we help them prepare for that future? While our students look to us to provide closer links to the world of work, they also look to us to provide opportunities for lifelong learning.

Each of these four vectors—student characteristics, emerging demographic changes, technological ubiquity, and the context in which our students live—creates challenges. To meet the needs of our students at this time of change and challenge, we cannot simply do things the old way. We cannot just work a little harder or a little better. We cannot rely on instituting a new program here or there. We need to embrace a level of change that is transformative and that capitalizes on the digital tools at hand and coming down the line. Only in that way can we meet the needs of the new normal student in a dynamic economy and a diverse democracy.

At the American Council on Education (ACE), when we think of digital transformation, we think of seeking answers to five related questions:

1. Against this backdrop of changing demographics, how can

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we enhance engagement among students and faculty in order to increase student success?

2. How can we innovate and then measure the results of those innovations to increase our impact at scale?

3. How can we stabilize or lower both cost and price?

4. How can we leverage existing physical and human capital to increase institutional capacity and responsiveness?

5. How can we use digital tools to close equity gaps?

We believe that the combination of advances in teaching and learning technology, in information technology and communication, in the capacity to store and use data, and in the skill of our workforce in the immersive digital environment will create both digital transformation and an enormous opportunity.

And it’s already happening. Together we are identifying policy, practice, and culture innovations that are meeting students where they are and creating new pathways for them as they seek to improve their lives. Whether it’s the EDUCAUSE work on Integrated Planning and Advising for Student Success (iPASS), the University Innovation
To move ahead, we should work collectively to promote the importance that digital transformation will not be self-executing. This requires both strategy and tactics. To make digital transformation a reality, we need to work on a rational deployment of tools and technology. But to harness the power of technology in truly transformative ways, we must also focus on the insights of the analytics revolution and on the governance structures, the culture, and the people who carry that work forward daily in our institutions. The key is how the data is used.

Having data and using data are often two distinct worlds. Data-sets do not speak to each other. Data is too often walled off, leaving key stakeholders without access. Analytic tool development is under-resourced and siloed, and we pay too little attention to the training of our workforce, from the IT department to the president’s office. I worry most about the latter. In the 2017 ACE survey of US college and university presidents, only 12 percent regarded institutional research to inform decision making” as a future area of importance.

In conclusion, I’d like to suggest a rubric for us to consider as EDUCAUSE takes on the question of how to further digital transformation. The rubric has six parts:

1. Digital transformation must be question-driven. Why do our first-generation students persist in their education at lower rates? When do students make decisions about majors and how? The answers to these questions need to inform the analytics that inform the innovations that inform the tests and measurements that inform the rollout of the implementation of digital transformation strategies.

2. Digital transformation requires both strategy and tactics. Without a full focus on strategy, all the tactical improvements in the world will not get us to the point of improving student outcomes.

3. Digital transformation must be experimental and iterative. Approaches to innovations need to concentrate not on engineering the perfect but, rather, on engineering the good and on moving to “the perfect” based on analytic exercises.

4. Digital transformation should be part of decision-making at every level of the institution. IT and IR professionals must play meaningful roles in strategic thinking at the departmental, school, and institutional level and should, in my opinion, sit on the president’s cabinet. This returns to my worry, noted earlier, that only 12 percent of US college and university presidents identified “using institutional research to inform decision making” as a future area of importance.

5. Both digital transformation and analytics are everybody’s business—from facilities and faculty to human resources and trustees. We must invest in training to build skills and cultural support for digital transformation. In the recent AACRAO/ACE survey, we found that leaders across schools and departments, even within a single institution, have very different ideas about the utility of data and analytics and about who should be in charge of that work. Again, this must be everybody’s work.

6. Finally, digital transformation is not morally neutral. We have learned quite a lot lately about the implicit biases that are built into the various algorithms in the private marketplace (e.g., resume-sorting tools). We need to keep these problems in the front of our minds as we think about the
systems and the tools that we build and deploy. Bias is built into the questions we ask. Bias is built into the problems on which we focus. Bias is built into the outcomes we test.

I believe we have a moral responsibility to focus our analytics and digital transformation strategies on improving outcomes and clearer pathways for low-income, first-generation students of color. Not because we should leave others behind, but because these students have been left behind for far too long. This must stop in the United States, lest we endanger our higher education institutions, our economy, and our democracy.

Notes
5. Calculated from ibid., p. 64.
6. Calculated from ibid., p. 68.

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