



Faculty, staff and leaders from community colleges work together at a Pathways Institute.

The Red Queen Effect of higher education

By Jack Brown

As I mingled in the crowd of professors and administrators at my first American Association of Community Colleges (AACC) Pathways Project conference near Houston, Texas, the phrase “Here we go again” crossed my mind. There has been no shortage of ideas, projects and conferences claiming to solve the various issues facing higher education, such as increasing attendance or retention, improving critical thinking skills or lowering costs. Faculty who have been around for a decade or more have seen many educational trends come and go, some with a little success and others with none. Many faculty see the “next big thing” as just the “next big pointless thing” that will be replaced in a year or two with another trend. More than a few faculty would say that these trends and projects are just more work and accountability measures conjured up by some think tank or agency that will do little to improve education, simply a hoop to jump through.

I did my best to hold these thoughts at bay and to enter into the conference with an open mind. As I listened to the research behind the Pathways Project, I began to see the logic involved. Imagine if our college really could develop clear, easily followed pathways to the degrees our students sought. Imagine if the programs of study the students entered were crystal clear to all involved and

aligned with their future employment or educational goals. Could we make it clearer, limit choices, schedule two years of courses in advance, and get more intrusive with our advising to help students clarify and achieve their goals? Our college was already doing much of this out of necessity. The initiatives and research into Pathways started making sense to me as I listened and read more about the Bill and Melinda Gates-funded project. As I listened to speaker after speaker, I noticed my head nodding more and more in agreement. I began to get excited and to realize how great it was for my college—Paris Junior College—to be among the 30 selected to be part of this project.

EVOLVING EDUCATION

As a science professor at Paris Junior College, I tend to be skeptical of everything. It is in my nature to want to poke holes in new ideas and research. Science has progressed because of this inherent skepticism. The great theories of science exist today because they have withstood the process of science. After all, the theory of evolution is the foundation of the life sciences, not because we love it or because we have been indoctrinated, but because it has withstood the skeptical nature and rigorous testing of science for more than 150 years.

I mention evolution because within the grand theory is a hypothesis known as the Red Queen Effect. The Red Queen Effect was proposed by evolutionary biologist Leigh Van Valen and states that species must constantly evolve just to remain where they are. It was named the Red Queen after an excerpt from Lewis Carroll’s “Through the Looking Glass.” As the story goes, Alice is running as fast as she can but notices that she seems to be getting nowhere. Alice asks the Red Queen why this is, and the Red Queen tells her: “Here, you see, it takes all the running you can do, to keep in the same place. If you want to get somewhere else, you must run at least twice as fast as that!”

So, in a co-evolutionary scenario where species are in a dynamic environment and evolving with one another, both must constantly evolve just to stay where they are or face extinction of one or both. Imagine if the fastest cheetahs in the population could run 80 mph and the fastest gazelles in the population only 20 mph: one is a clear loser there. Or, what if species’ immune systems failed to keep pace with rapidly changing parasites?

Now, imagine a world where professors and colleges do not keep up with the changes that occur in student populations over time—a world where course delivery remained the same, advising never changed and student services were frozen in time. Now assume student populations are changing due to changing secondary curricula and culture (and perhaps rapidly). Who do you predict faces extinction? Should colleges take the “if it ain’t broke don’t fix it” approach and expect their very different students to adapt to them and their ways or should they co-evolve? Will the “this is how it has always been done” policy function as a model in the future for professors and colleges?

AVOIDING EXTINCTION

For us to stay set in our ways, unwilling to change, is a recipe for disaster. As I sat through the Pathways meetings, I began to view their content through an evolutionary lens. Pathways is based in the observations and research gathered in higher education showing that student populations are changing and that the

deliverers of education had best change with them or face extinction.

Gone are the days when students showed up to take random courses for a few years before deciding on a degree. Students were wasting too much money and graduating with far more credits and debt than needed. Modern students need and want more direction and degree pathways that are clear, adaptable, easy to follow, and easy to plan around in their often busy lives. As a result, colleges need to rethink advising, course scheduling and course delivery. Colleges must evolve with the changing student populations.

It does no good to remember the “good old days” when students were perhaps better prepared and more enthusiastic about a college degree, when they did well with lectures involving a blackboard and piece of chalk, and when grades were based on a few exams. Current students have grown up under a different educational system than many of the professors who

teach them. Grades in secondary schools are often spread across a variety of assignment types with flexible due dates. Today’s students have also grown up in a different world culturally: where almost everything is a click or Google Talk away, where social media are important, and where a student can download an app to solve an algebra equation. We know through research that students need to see value in assignments, the ability to succeed, to have choice, and receive feedback quickly. It is easy for us to complain and to remain in the era we grew up in while the students we teach are in a very different era. However, we are going to go extinct if we stay there and choose not to co-evolve or to run just as fast as we can or faster.

It is time to evolve and to rethink higher education in a way that matches the pace of our evolving student population. The pace of evolution is no longer the same in education: it has accelerated. The fossil record is littered with “punctuations”

where the pace of evolution changed in the face of rapidly changing environments. Those species that possessed genes allowing them to survive or even do well when facing changing environments were selected for, while others faced extinction. We must keep up with the changing culture of student populations if we are to avoid extinction.

Luckily, the ability to change resides with us—we can choose to evolve. We must open our minds to education research and to new trends like the Pathways Project. We must not dismiss the ever-evolving world we live in and assume students will de-evolve to the world we grew up in. We cannot ask a modern-day species to evolve away from current local conditions. Let us not remain in the comfort zone of the way things were but let us co-evolve with the way things are. ■

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PROGRESS BEING MADE WITH PATHWAYS PROJECT

One year into their intensive work on pathways design and implementation—at scale, for all credit students—the AACC Pathways Colleges are intensely on task and making notable progress. According to findings from the Community College Research Center, drawn from site visits to a sample of project colleges and other broader assessments across all 30 project colleges, progress in the work can be briefly described in ways including the following.

Clarifying pathways

Central to the guided pathways approach is the development of clear and coherent pathways for students.

- All of the Pathways colleges have established broad career-focused fields or “meta-majors” as the framework for their program mapping efforts. These clusters of related majors are variously called “communities of interest,” “academic and career pathways,” “schools,” “institutes” and so on.
- Pathways colleges have committed to having program maps in place for all entering students by fall 2018.
- Many project colleges involve employers and university partners in the mapping process, gaining feedback to ensure alignment of pathways with jobs, careers, and transfer.

Helping students choose and enter a path

Under the Pathways model, colleges redesign their entering student experience to help students explore career and

college options and choose a meta-major or program of study early on.

- As part of the intake process, colleges are progressing toward requiring students to develop a full-program academic plan by the end of their first term, or by the second term at the latest.
- A number of Pathways colleges are redesigning their websites to show meta-majors/program maps and their connection to specific employment, career and transfer opportunities.

Helping students stay on path

Colleges implementing pathways typically need to redesign their advising systems to help students progress through their program plans, to intervene when they are struggling and to help students consider a new direction when they change their minds or do not progress on their initial path. All of the AACC Pathways colleges are taking steps to strengthen advising to help students make timely progress on their program plans.

As the colleges move through the Pathways Institute series as a cohort, they have developed a learning community, relying on one another for implementation support, lessons learned and on-the-ground ex-amples for faculty, staff and administrators.

For more information, see CCRC’s progress report: “Community Colleges Redesigning: Early Insights on Implementing Guided Pathways from the AACC Pathways Colleges (April 2016).”