"Commencement": An Excerpt from DIY U - Blog

The following is an excerpt from the forthcoming [DIY U: Edupunks, Edupreneurs, and the Coming Transformation of Higher Education](#) *by* [Anya Kamenetz](#)*. It has been adapted for the Web.*

I have visited the university of the future.

Its classroom is a van bumping over dirt roads in Baja California, Mexico. The curriculum includes technology, economic and social development, anthropology, sociology, pedagogical techniques, and leadership and teamwork skills. Noah, a nineteen-year-old Princeton sophomore, is on his laptop in the front seat doing some last-minute debugging of an interactive storytelling software program—giving a new meaning to "mobile development," he joked—while Ricardo, a master's student at Stanford, is translating the program's directions into Spanish.

We spend the next two days meeting with indigenous Mixtec and Zapotec children at migrant farm workers' camps with haphazard access to doctors and schools. I watch kids as young as six pick up palmtop devices and tiny netbook computers made in China and programmed in India and Argentina, and within a few minutes, helping each other, with almost no directions, they're playing games that teach math skills, and writing and illustrating their own original stories.

Paul Kim, the chief technology officer of Stanford University's School of Education, has user-tested this "Pocket School" idea in Rwanda, Uganda, Kenya, and India over the past three years. His passion is to connect people around the world, from all backgrounds and circumstances, and empower them to teach themselves using appropriate technology that is designed and redesigned by an informal network of students and volunteers to be responsive to their needs. "Why does education need to be so structured? What are we so afraid of?" he asks, his penetrating questions always softened with a warm smile. "The more you expect from a kid, the smarter they're going to get."

Over the course of a few days, I witness him applying this approach not only to the children in the campos but to the students in the van. Noah, a self-taught programmer who plans to major in politics, is learning on an as-needed basis, with immediate feedback from his users (the children) and collaborating with students

from other institutions. His "personal learning network" includes the world at large—when he has a question about a finer point of Flash or ActionScript 3, he simply Googles the key words, he says, "to see how someone else solved it before me." The BA he earns at Princeton will be valuable, but equally important to the course of his life will be the experiences he takes with him, not to mention the portfolio of socially engaged educational software programs and games he is creating.

Everyone explores, virtually and actually. Everyone contributes something unique. Everyone learns. This is the essence of the DIY U idea. It takes us back to the basics—the universitas (guild) and the collegium (community). People everywhere will have a greater ability to create their own learning communities and experiences within and outside institutions. This is happening now and will inevitably happen even more in the future. But how transformative will it be? Can the growth of these technologies and practices truly address the major challenges of cost, quality, and access? And if so, which of them are most valuable and most worth celebrating, supporting, and expanding?

Here's what I know for sure:

1. The promise of free or marginal-cost open-source content, techno-hybridization, unbundling of educational functions, and learner-centered educational experiences and paths is too powerful to ignore. These changes are inevitable. They are happening now. Innovative private colleges like Southern New Hampshire and for-profits like Grand Canyon, upstarts like BYU–Idaho and Western Governor's University, and community colleges like Foothill-De Anza represent the future.
2. However, these changes will not automatically become pervasive. Many existing institutions, especially those with the greatest reserves of wealth and reputation, will manage to remain outwardly, physically the same for decades, and to charge ever-higher tuition, even as enrollment shifts more and more toward the for-profits and community colleges and other places that adopt these changes.
3. In order to short-circuit the cost spiral, and provide access to appropriate education and training for people of all backgrounds, there is much hard work to be done in the way schools are funded and accreditation and transfer policies are set. College leaders need to have the will to change, as Chancellor Kirwan did at the University of Maryland, recognizing the central importance of efficiencies and changing the relationship between universities and their funders. Political leaders need to legislate change, as Senator Dick Durbin is by calling for open textbooks, and Bob Shireman by proposing to link funding for student loans to a college's proportion of Pell-eligible students. Above all, learners and their families need to recognize that alternatives to the status quo exist and demand change.
4. The one thing that can change dramatically and relatively swiftly is the public perception of where the true value and quality of higher education lies. It's no longer about the automatic four-year degree for all. Institutions can't rely any more on history, reputation, exclusivity, and cost; we now have the ability to peer inside the classroom as professors are lecturing and see students' assignments published to the world. So we have both the ability and the obligation to look at demonstrated results.

Both learners and providers need to get comfortable with identifying meaningful objectives—and meeting them. For individuals, the true value of education has to be intrinsic, not extrinsic. It can't be just about

gaming the system, gaining the imprimatur of some exclusive external organization. The point of those one year, two years, four years, or ten years after high school is to help you figure out what you want to do, and to give you the ideas, skills, and connections you need both to do it, and to prove that you can do it. Period. For institutions, likewise, being allergic to talk of productivity and efficiency won't do anymore. Parents and families are going to vote with their dollars, and better options are only a click away.

The Reformation didn't destroy the Catholic Church, and the DIY educational revolution won't eradicate verdant hillside colonial colleges, nor strip-mall trade schools. DIY U examples will multiply, though. Most likely, in bits and pieces, fits and starts, traditional universities and colleges will be influenced by them to be more open and democratic, to better serve their communities and students. Along the way, we'll encounter rough spots, growing pains, unintended and unforeseen consequences—but the alternative is to be satisfied with mediocrity, and insufficient supplies of it at that.

Certainly, when only one-fifth of the relevant population worldwide is enrolled in existing higher-education institutions, there is a whole lot of greenfield space to cultivate variations. "We have what I call a law of thirds in this country," Peter Smith, who has spent a distinguished career in higher education and now works for the forprofit Kaplan University, told me.

> About one-third don't graduate high school in ten years. The second third—actually more like 40 percent of the total—get a little college. And the third third gets an associate's degree or more. This has been pretty flat for the past thirty years. When you juxtapose that against the workforce needs of the country, we're several million down now and we'll be 7 to 8 million down within a few years. And in this global economy, we've got—let's take China as an obvious example. As soon as they become as productive as we are they will swamp the economy with qualified workers. We have to do better than "sort of " educating one-third plus a few to an associates' degree level. We don't need incrementalism— we need new models.

Brian Lamb, an educational technologist at the University of British Columbia, sketches out for me one potential vision: "For universities, here's the nightmare scenario. Imagine Google enters a partnership with the two or three top educational publishers, builds on the existing open-educational resources already released, uses the reach of Google to coordinate discussion and peer-based networks and develops a series of tests that they also certify. What then?"

Judy Baker at Foothill-De Anza both has an idea of what a new model will look like, and is in a position to help it happen.

> The way I see it, higher education, ten, twenty years from now is going to look very different. It won't be the brick and mortar and the semester and a course in this and a course in that. It's going to be more outcomes based and skill based, project based. You don't have to take these sixty courses or whatever it is to be a journalist. Someone will identify your gaps and then you address the gaps, in whatever way is possible. And that may mean taking an online course from New Zealand, being in a discussion forum

> with people in Canada, an internship in Mexico with Habitat for Humanity. You just need to get the knowledge and skills whatever way you can and then test out or present a portfolio. And when you add it all up, a few years later, you actually are ready to be a good journalist.

The science of evolution teaches us that new dominant species emerge when environments shift, and that small changes can have greatly amplified effects over time. Even more fascinating than predicting which of these higher-education models might ascend within ten or twenty years, and which are the dinosaurs, is the potential of DIY U practices to release great stores of what Paul Kim calls the world's last renewable resource: human creativity.

The whole project of formal education has been based on the idea of society transmitting its ideas, values, and technologies from one generation to the next, and from dominant civilizations and cultures to "backward" or "primitive" ones. In the modern era we added the task of making and incorporating new discoveries into the curriculum year after year. As our society got more complex, we developed bigger and bigger institutions to teach more and more people more and more things.

Well, now the world is changing too fast, and the need is growing too much, for institutions to keep up. Scientists say we have less than ten years to reinvent how we get energy, how we get around, and how we make things if we don't want our civilization to collapse from the effects of global warming. And to do that, we as a species also have to find better ways of communicating, making decisions, and understanding and weighing each others' needs.

No one person knows how to do this; it requires a new synthesis of the wisdom of the ancients and cutting-edge discoveries. Our best hope is to get better at empowering individuals to find answers for themselves. In other words, forget about giving the guy a fish, or teaching him how to fish, either. Teach him how to teach himself, and he'll always be able to acquire the skills he needs to find food, skills you haven't even thought of yet for things you didn't know you could eat. Fishing itself, it happens, is a great example of this. Today, 90 percent of fish species are overexploited. Fish farming is people's fastest-growing source of food and will probably remain so through 2025, says James S. Diana of the University of Michigan at Ann Arbor. The world needs people who can figure out new ways to repair the oceans and to find or grow renewable sources of food.

The lucky thing is that we humans are hard-wired to learn and discover. Jaak Panskepp, a neuroscientist at Washington State University, studies emotional systems in mammals. In the sniffing and outstretched neck of a rat combing a maze for food, he sees a universal mammalian urge, as basic as rage or fear. Writes Emily Yoffe in *Slate*:

> It is an emotional state Panksepp tried many names for: *curiosity*, *interest*, *foraging*, *anticipation*, *craving*, *expectancy*. He finally settled on *seeking*. Panksepp has spent decades mapping the emotional systems of the brain he believes are shared by all mammals, and he says, "Seeking is the granddaddy of the systems." . . . For humans, this desire to search is not just about fulfilling our *physical* needs.

> Panksepp says that humans can get just as excited about abstract rewards as tangible ones. He says that when we get thrilled about the world of ideas, about making intellectual connections, about divining meaning, it is the seeking circuits that are firing.

This ongoing search—the heartbeat of DIY U—is crucial to our evolution and our survival.