Why 'Nano-Degrees' Can Never Replace Liberal Arts Colleges

In a market where jobs are constantly shifting and disappearing, the kind of ultra-specialized training offered by companies like Udacity won't go very far.

Michael Roth | Sep 8 2014, 3:06 PM ET

 "It is like a university, built by industry." So said [www.nytimes.com/2014/06/18/business/economy/udacity-att-nanodegree-offers-an-entry-level-approach-to-college.html?_r=1] the maverick entrepreneur, engineer, and would-be education disruptor Sebastien Thrun, describing his company Udacity's partnership with AT&T this past June. The plan is to teach basic programming so that young people don't have to bother with college before grabbing an entry-level job. "It's a more focused education with less time wasted," Thrun told *The New York Times*. "They can get a degree quickly, get a job and then maybe do it again."

Thrun, once a Stanford professor and Google scientist, remains optimistic despite the dismal results of his company's first university partnership. Last January, he promised to revolutionize education by offering three online math courses through San Jose State; six months later, after more than half of online students failed their final exams, the university suspended the program. "We don't educate people as others wished, or as I wished. We have a lousy product," he told *Fast Company* [www.fastcompany.com/3021473/udacity-sebastian-thrun-uphill-climb] at the end of the year. Udacity decided to pivot from partnerships with universities to collaborations with industry.

Enter the "nano-degree." If you can't "disrupt" education through innovation, the thinking goes, just downsize it so much that it becomes training for just one task that a particular company wants at one particular moment. The same philosophy is the driving force behind Treehouse, a company that offers online courses in business and web development. Under the banner of diversifying tech companies, the CEO, Ryan Carson, urges tech-minded girls to skip college [www.fastcompany.com/3034512/this-guy-wants-girls-to-skip-college-and-go-straight-into-tech-jobs] and just learn how to code. Wedding corporate training to identity politics, Carson claims that the current language of business is all young women need to know in order to earn a more equal footing in the technology world. It's *like* a university—but not really.

As the president of Wesleyan University, and somebody who has been teaching college students for 30 years, I'm very skeptical about the current re-fashioning of vocational education under the banner of Silicon Valley sophistication. We *do* need experiments integrating technology and pedagogy. That's why I've been teaching online courses with my Wesleyan colleagues over the last two years. We've reached almost a million students in that time and continue to learn from

working together. But we teach students online in the same way we do on campus: with the goal of broadening their thinking while sharpening their skills.

I know well the many challenges facing higher education today: rising tuition and onerous student debt; drastic cuts to state support of public institutions; poor measures of real student learning; the debilitating effects of inequality; groupthink; sexual violence; poorly paid adjunct professors; and the disconnect, at many institutions, between the impetus for new research and the core mission of teaching undergraduates. But none of these problems should frighten us into abandoning the model of pragmatic liberal learning that has made America's best colleges and universities the envy of the world.

We've seen this many times before in American history. As I recently pointed out in *Beyond the University: Why Liberal Education Matters*, Booker T. Washington wanted to help ex-slaves acquire practical skills so they could become self-sufficient after the Civil War. And around the time of World War I, chambers of commerce and labor federations united to back legislation for a dual secondary educational system. According to that plan, some young people would be trained for specific jobs, while others would get a broad education allowing them to continue their studies in college. The movement led to the Smith-Hughes Act of 1917 to finance vocational instruction.

Those who opposed this vocational turn certainly realized that people needed skills to get jobs. But they also realized that this kind of tracking would only exacerbate social and economic inequality. As John Dewey wrote, some of us "are managers and others are subordinates. But the great thing for one as for the other is that each shall have had the education which enables him to see within his daily work all there is in it of large and human significance."

Education should aim to enhance our capacities, Dewey argued, so that we are not reduced to being somebody else's tool. "The kind of vocational education in which I am interested is not one which will 'adapt' workers to the existing industrial regime; I am not sufficiently in love with the regime for that."

This is what Udacity is missing in its willingness to tailor its program to the existing industrial regime's immediate needs. "You'll learn skills that match industry demands," the company promises on its website. "With the credentials to prove it." Fiona M. Hollands of Teachers College Columbia University voiced cautious approval, telling the *Times*: "We still need rounded people, which you can't get through mini-certificate courses. But we also have an economy to run here." Those who make the most lasting contribution to the economy, however, will be the "rounded people."

Thrun himself is far from unaware of the benefits of a well-rounded education; he got one himself, and has described artificial intelligence as "almost a humanities discipline." But, like Carson, he knows that in a society characterized by radical income inequality, anxiety about getting that first job will lead many to aim for the immediate needs of a company that has an opening. The problem is, when those needs change, the folks with that specific training will be out of luck. These online educational ventures don't pretend to be educating the whole person; they want just to train a small part of a student for a specific task.

A century ago, pragmatists like Dewey argued that given the pace of change, we should not fool ourselves by trying to educate people only for the tasks of the moment. Once we develop habits that just allow us to conform to the world around us, to fit into existing conditions, we stop learning. Instead, he wrote, we should instill habits of thought and action that will give students a better chance to shape their own future.

A country that wants to maintain the dream of social mobility requires real colleges and universities that encourage everyone to find what Dewey called "large and human significance" in their lives and work. This requires the opposite of a nano-degree: not just code but context, critique, and cooperation. It requires real colleges and universities—institutions that equip students to reshape themselves and the world around them by learning to think for themselves and continually reinvent what they do.

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