

Highlights from a recent Campus Technology Webcast on how technology is changing higher education.

# THE DIGITAL REVOLUTION IN HIGHER EDUCATION: CHALLENGES AND OPPORTUNITIES FOR TODAY'S UNIVERSITIES

## Perspectives on leadership and innovation in higher education

**H**igher education has come under increasing scrutiny as never before due to rising costs, changes in future job requirements, and new forms of learning opportunities offered by non-traditional companies and institutions,” says Dr. Alan R. Shark.

Those changes, Dr. Shark notes,

University; and author of the first chapter in *The Digital Revolution* titled “The Future and Present Challenges of Higher Education,”

In a wide-ranging discussion covering everything from changes in the workplace and changes in attitudes toward higher education to the problems of innovation at the university level, both

In this new “smart” environment, he says, “students become explorers in the classroom and the teacher becomes a facilitator of learning, rather than a lecturer.”

The other part of this revolution is remote learning. “It doesn’t matter where I am in the U.S. or anywhere else in the world,” says Shark. “I can

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— Dr. Alan R. Shark, author and CEO of the Public Technology Institute

have created a revolution in higher education. Dr. Shark is the executive editor and a contributing author to *The Digital Revolution in Higher Education – How and Why the Internet of Everything Is Changing Everything*.

In a recent *Campus Technology* Webcast sponsored by Cisco, Dr. Shark, who is also the executive director and CEO of the Public Technology Institute (PTI) and associate professor of practice at Rutgers University School of Public Affairs and Administration, discussed that revolution with Dr. Brett E. Trusko. Dr. Trusko is the president and CEO of the International Association of Innovation Professionals; an assistant professor at Texas A&M University, Mount Sinai College of Medicine, and New York

Dr. Shark and Dr. Brett expressed their view that the digital revolution is challenging universities in such profound ways, whether they can remain relevant in the 21st century is questionable.

Dr. Shark began by discussing two major changes that are making the digital revolution so compelling. One of those changes is the idea that “smart” is *everything* and *everywhere*. “We’re seeing smart classrooms with a wide variety of devices that make learning far more accessible and interesting,” he says. “We’re seeing smart libraries that have become centers of knowledge where one can get more information than they ever thought possible. We’re seeing smart tools that range from data-feeding sensors to 3D printers to learning management systems.”

enter the smart classroom and see and hear all my students in HD.”

The most exciting piece of the revolution, he says, is the ability to have students from different parts of the world come together and share in the classroom experience or have an outside expert “visit” the classroom on a laptop.

These things are not necessarily new, he admits. “But when you put these things together, they paint a very interesting picture about how things are changing inside the walls of higher education.”

### Higher Education Scenarios

As a futurist, Dr. Trusko began by outlining some of the changes taking place in both the university and the workplace. In the workplace, for

example, Trusko outlined three major changes— loss of job security, BYOE, and elimination of tuition reimbursement programs.

Twenty or thirty years ago, says Trusko, many employers offered what was essentially a lifetime contract. That's no longer the case. "Employers have to look out for themselves more than they ever have in the past."

Likewise, in used to be good to have only one job on your resume, says Trusko. Today, that's no longer true. "It's actually good to have a variety of jobs on the resume."

There's also the BYOE (bring your own equipment) trend. "That makes it possible for employees to take their files and work product with them to the next job," says Trusko. "Their knowledge is always with them."

A third trend in business is a movement away from tuition reimbursement programs. "Employers are no longer willing to support tuition reimbursement programs," he says, "unless those programs and skills are directly applicable to the job."

Besides these trends in business, there are also trends in the attitudes of students and their parents about higher education. Trusko describes what he calls "The Silicon Valley Effect" among students. "Students see young entrepreneurs without a college degree (but an original idea) getting rich in Silicon Valley, and they question the value of higher education relative to its cost."

According to Trusko, students often view real world experience as more valuable than college. In fact, they see value in failure. They also question the value of certain required courses, particularly in the humanities. "They question why they have to take certain

courses that will never translate to the specific career they want," he says.

Trusko says employers are starting to turn to licensing or certification to ensure applicants have the specific skill set that they need. They want applicants with useable skills on day one. "Their attitude is why should I have to train them?" If employers continue to look for certain skill sets rather than a degree, he warns, you have to wonder what's going to happen to university education.

Finally, Dr. Trusko points out many students and their parents feel tuition is too high for the potential rewards. "They are seeing that there are alternatives, such as online courses or licensing or certification."

### Meet the Challenge

To meet these changes in the workplace and in academia, higher education institutions are faced with a number of challenges, including excess capacity, diminished value of educators, and a bloated administration. "There are three times more administrators than professions at the universities," Trusko says, "and salaries are about three times higher than professors."

One of the biggest problems, however, is colleges' and universities' ability to adapt and change. Many institutions, he says, have been doing the same thing for 50 years or more. They simply don't want to or don't see a need to change. "But the students have changed," he says. "If we don't keep up, we're going to be left out. That's the challenge of higher education today."

Another challenge facing universities today is research and collaboration. "Higher education is supposed to be a

collaborative body," says Shark. "And yet we still find ourselves very much in these little silos. Maybe they are silos of excellence, but they're still silos."

Attitudes have not kept pace with the technology. "We have the technology to share research across silos," he says. "We have the technology that can bring people together from all parts of the world. That's where technology is enhancing higher education."

Trusko agrees. Technology is helping higher education work across silos, noting he is starting to see this happen. "I'm seeing examples of where the college of medicine is working with the business school or with computer science people," he says. "If we start putting these students together, we can start putting together a really interesting and beautiful puzzle."

### Effect Change

In the future, Dr. Shark believes it will be more important than ever for academic leadership to establish a culture of innovation for not only using the available technology, but also rewarding those who do. "You can't innovate," says Trusko, "if you don't have a perspective of where the world is going next week or next year. As I talk about innovation, I talk about essential leadership roles in innovation from guide to cheerleader to mentor. You need all of these things. But most importantly you need to be a futurist."

Shark is direct in assessing the future of the digital revolution in higher education. "The tools are there; the excitement is there; the possibilities are there," he says. "We need a culture of innovation that not only embraces and encourages innovation, but funds it as well." •

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