

What Happens Next – Sunday May 2, 2021
Online Universities, the Rebirth of NYC, Wine, Bourbon, and Tequila
Zvi Galil

Larry Bernstein:

Alright, let's begin today's program with Zvi Galil who will introduce us to the very innovative online master's program offered at Georgia Tech.

Zvi Galil:

In March 2020, universities moved almost all their courses online. Six years earlier, Georgia Tech introduced its online Master of Science in Computer Science program. Some say we were prescient. In my six minute lecture, I will tell you about the programs unique features, what we have learned so far and share with you some thoughts about the future.

The program has five unique features:

One, it is the first MOOC-based online program. This means it is based on MOOC technology. MOOCs are massive open online courses.

Two, it is highly affordable. The total cost of the program was initially \$6,600, now \$7,000. In comparison, the cost of our on-campus program is \$40,000 for out-of-state students and \$25,000 for in-state students. The cost of private universities is \$70,000 or more. This drew everybody's attention. Our motto is accessibility through affordability and technology.

Three, we accept every candidate with the B.S. that meets certain requirements, i.e., everyone that we believe can complete the degree successfully. So far, we have accepted 74% of applicants. This compares to 10% or less for other well-known universities. The program is a fundamental, even revolutionary, shift from the prevailing paradigm of higher education in which brand is bolstered by exclusion and high tuition fees.

Four, the students make extensive use of social media, where they created 74 communities. Their academic interaction on social media is much more intense than that of the on-campus students.

Five, the program's size. In January 2014, we started with 380 students, and this spring, we have over 11,000. It will exceed 12,000 in the fall. The sky's the limit, and we cannot see the sky. So far, we have had over 40,000 applications. The program has graduated life to date more than 5,000 students and will graduate about 2,000 in 2021. A 2017 Harvard study predicted that we will increase the annual number of graduates with master's degree in computer science in the US by at least 7%, but today these degrees are growing at rate of almost 10%.

What we have learned.

A top-tier university can create a high quality online program that can scale.

Two, the demographic of the online students and the on-campus students is quite different and the online program has not cannibalized the on-campus program. Since the start of the program, the number of applications to Georgia Tech's on-campus program has tripled.

Three, the program caters to a population of potential students that has been underserved by higher education institutions. There is large and growing demand for such programs as ours. Over 30 universities followed in our footsteps and created over 40 programs, more are needed.

Four, you can't learn what you don't try, never say never.

Five, the online students are much more involved in the classes and the on-campus students.

Six, students love our program. The Harvard study discovered that most would not pursue the degree if such a program did not exist. We hear it from them directly as well. I've given dozens of lectures in 16 countries and met students and alumni everywhere, in my lectures, on the street, on the plane. They thank us for creating the program.

We have almost 400 TAs, 40% are alumni of the program, 25% are students in the program. They work for little pay, even though they have full-time jobs and many have families. It is their way to give back. We could not scale the program without their help. This is heartwarming.

During the pandemic, many teachers and students were exposed to online for the first time. After the pandemic, online teaching will be much more pervasive than it was before the pandemic. There will be more online degrees like ours, more online courses and more hybrid courses. Georgia Tech now has three MOOC-based, highly affordable, online master's degree programs. The University of Illinois, the first that followed us, now has three as well. A book, *The Distributed Classroom* by David Joyner, the current executive director of our program, and Charles Isbell, the current dean, will come out in September. It captures the lessons we learned and shows several new ways that classroom teaching can be combined with online learning in the future.

At Georgia Tech, we started online teaching on our own campus and the graduate program. In 2017, we introduced an online section of the first computer science course, Introduction to Computing with Python. It has been a big success. About half of the students took the online version. They performed slightly better and were more satisfied than those who took the course in-person. In 2019, we added two more courses. I envision a future where undergraduates will have a choice of a hybrid program. Students will be able to take into introductory courses online even before arriving at the university, and students will be able to

take courses online while serving as an intern and or working. If universities adopt our model of moderate pricing, students will graduate with no debt. Thank you.