Columbia Entrepreneurship, Innovation and Design at Columbia University in the City of New York

by Richard Witten, August 21, 2019
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Overview

COLUMBIA UNIVERSITY
IN THE CITY OF NEW YORK

Editor's Note: Richard Witten was interviewed on August 15, 2019 by Philip Bouchard, Executive Director of TrustedPeer Entrepreneurship Advisory. This interview was condensed and edited for clarity.

Interview questions and highlights:

- *What was your strategy in implementing the Columbia Entrepreneurship initiative?*
- *Did Columbia Entrepreneurship evolve according to a plan or did it grow organically?*
- *What do you mean by the entire City of New York is your campus?*
- *How big a part does the relationship with your alumni play in using the whole City of New York as your as your campus?*
- *What do you see as the next phase in teaching entrepreneurship?*
- *Are standards now being set? Or is entrepreneurship and the way it's being taught and the way it's being learned still in flux and fluid?*
- *Would you advise other universities to implement similar Hacking for X programs?*
- *How does ethics thinks fit into Columbia Entrepreneurship?*
- *What is Columbia doing to encourage inclusivity?*
- *Do you ever sunset programs? Which ones have you terminated and why?*
- *What would you recommend for universities who are just getting started with their entrepreneurship centers and entrepreneurship programs?*
- *Where does the curriculum part of entrepreneurship fit into the overall structure?*
- *What's next for a Columbia Entrepreneurship? What what do you see over the next few years?*

Philip Bouchard: You founded Columbia Entrepreneurship, Innovation and Design in 2013. You've accomplished such a great deal and build such an impressive ecosystem in a relatively short period of time. What was the state of entrepreneurship at Columbia prior to 2013? What was your strategy in implementing the Columbia Entrepreneurship initiative?

Richard Witten: The observation was that there were things going on at the University, but they were siloed efforts. Columbia, as you know, is a mix of 17 schools, and there were entrepreneurship activities going on at the business school, at the School of Public Health, at the engineering school, at the College, and so on, but they were all working separately. That's been the orientation of the organization. That's not to say that some cross disciplinary work doesn't take place but it's more the exception than the rule. That was true at Columbia certainly 20 years ago and at most major research institutions. It is much less so now.

The observation was that that, while things were going on, they lacked the leverage of the great research University that we are and that there was some duplication that was taking place. As a result, there was a lack of efficiency, but more importantly, there were things that were missing that one individual school at Columbia would have trouble mounting but a collection of schools and institutes would be able to do from an efficiency point of view and from a substantive point of view.

I took this idea to the board of the University and to the president of the University. They agreed that something should be done to create a more fertile entrepreneurship ecosystem for the University writ large. As a former University trustee and vice chairman of the board, I understood the Columbia political world and how these institutions worked. I'd also spent 22 years at Goldman Sachs where I had developed a relatively sophisticated sense of how organizations work.

My promise to the president and the board was to create a resource-rich ecosystem that didn't get in the way of any individual institution. That was a key component. No one has felt that we are taking their turf or extracting resources that otherwise would have come to them. We are, indeed, a partner with our 17 schools and institutions around the University. We share credit for everything that we do even though we may be taking a leading role in it. That has been the singular structural advantage that we've had.

PB: **Did Columbia Entrepreneurship evolve according to a plan or did it grow organically?**

RW: If someone had said to me six years ago that we would be where we're at now, I of course would say, "No way. I never would have anticipated this." But that's good. We are a startup and startups never end up where they where they think they're going to end up when they start. Because our team is so flexible and so sensible about the nature of what we're doing, that this initiative is alive and involves pivoting as a natural way of life, we've been able to pivot multiple times and still stay on our mission.

PB: You have said that, "Columbia views the entire city of New York as our campus." Beyond the different physical locations of your programs across the City, what do you mean by the entire City of New York is your campus?

RW: Columbia is one of several fantastically interesting and fantastically effective research institutions in the United States and around the world. What sets us apart is the city of New York. That's not just a trite saying. The city of New York is an extraordinary place that is constantly reinventing itself. One only needs to look at what's happening in the economic structure of the City right now to realize that that's true.

For example, there's this dynamic of going from a Wall Street finance-driven economy to one that is much more technology oriented, much more startup and innovation oriented. That process of change has happened, I'm going to guess, a hundred times, maybe even a couple of hundred times, over the course of New York's 400-year evolution.

At a staid institution like Columbia, faculty have tenure and they stay around for a long time, where we do what we've been doing for 300 years. Yet we sit in an environment that is changing by the millisecond. Everything that we do in the entrepreneurship, innovation and design spaces at Columbia, reflects that dynamism that is New York.

That dynamism is a substantive dynamism. It is moving into technology or moving into social ventures or moving into a climate change focus, but it's also a dynamism that's a function of the kind of people that are in New York. There is no more diverse place in the world than New York City. There is no more diverse School in the world than Columbia University. That's not coincidental. That's a strength. Rather than fight that, we amplify that in everything that we do.

PB: You truly embrace your Columbia alumni. There are many alumni within the city of New York. How big a part does the relationship with your alumni play in using the whole City of New York as your as your campus?

RW: It is certainly true that there are significantly more alumni in New York than there are in other places. But that ratio is changing dramatically over time. Fifty years ago 85-90% of the University's alumni stayed in New York. Now, it is closer to 50% and that's a really good thing because we live not only in a global financial economy, but also a global intellectual economy. There are Columbia thought leaders in every field in lots of different places - not just in New York.

The bigger question is engaging the alumni as a living part of the University, not just as a donor base. So yes, they are a donor base of course. No big school can survive without tapping into those extraordinary financial resources. But what we're trying to do at Columbia Entrepreneurship is tap into those experiential resources as well. Our alumni are leaders. We have former Presidents of the United States who are engaged. We have former Attorneys General of the United States and the current Attorney General of the United States who are in engaged. We have the heads of some of the largest venture capital firms in the world, and so on and so forth.

Part of our quest at Columbia Entrepreneurship is to not just utilize their financial strength of our alumni, but to utilize their experiential strength, to bring them back to campus, to engage them in helping the institution stay current and vibrant.

I learned a long time ago that busy people want to engage only if they're given something substantive to do. Who needs a social board? We need an active board. We need people who want to work. The more you ask an important person to engage

in things, the more likely it is that she will do so; because she doesn't have time just to have lunch, but she does have time to make a difference.

Engaging alumni really starts on day one. The day they graduate, they are alumni. We have an incubator downtown that just celebrated its fifth anniversary. It is dedicated only to recent alumni because we want to engage them as soon as possible in their journey to make a difference in the world.

PB: One of the mandates of Columbia Entrepreneurship is to improve the way entrepreneurship is taught. What do you see as the next phase in teaching entrepreneurship?

RW: That's a great question. We're focused on developing more programming in experiential learning. While learning can be accomplished in a classroom in certain areas, and there's a predicate of knowledge that is best acquired in a classroom, the most impactful knowledge and skill sets get acquired in the field.

Rather than trying to teach entrepreneurship in a class of X number of people sitting in an amphitheater, we're taking it out on the street. That runs the gamut from working with Steve Blank and the Lean LaunchPad program to to starting your own business because some of those businesses will actually succeed. My son, for example, started a business as part of Steve Blank's Lean LaunchPad program and it's actually up and running and doing well. But the most important part is the knowledge that one learns working with something real; something that's yours. It's been phenomenally successful.

We run a program called Hacking for Defense, which is another one of these experiential learning programs. On the social venture side, we have programming that works on trying to improve not-for-profit, more socially-oriented missions like education in Brazil or climate change in Africa. With these initiatives, our students are part of teams that are working on de novo projects as part of their experience to learn in the field, but also to try to contribute to solving or ameliorating a difficult problem in the real world.

PB: I interviewed Steve Blank earlier this year (see interview with Steve Blank). Steve started as a fellow at Columbia in 2012, which was the same time that you founded Columbia Entrepreneurship. Was Steve's arrival just a coincidence?

RW: As I was doing my research into thought leaders in the space, I of course came upon Steve Blank. So, I cold called him. He didn't know me from a hole in the wall. I had never met or spoken to him. But, I called him and he answered. We ended up talking for about two hours.

Steve gave me extraordinary guidance on the value-added things that I could bring to the University. He had just started teaching Lean LaunchPad (LLP) at Columbia, so I asked him if he would want to remain a valued advisor he said yes. It's been a fantastic relationship. Steve has added enormously to the structure of what we do and I engage him as much as I possibly can. He's just a really busy guy and he's made an enormous difference in so many areas of this country.

PB: The languages of Lean Startup, Business Model Canvas, Hacking for Defense and Hacking for X are now broadly accepted. Do you see the approaches to entrepreneurship and innovation maturing to the extent that these are standards that are now being set? Or is entrepreneurship and the way it's being taught and the way it's being learned still in flux and fluid?

RW: Entrepreneurship and innovation education may be scaling, but it's not yet at the maturity of a General Motors. Thank God, because that would be a shame if we assumed we knew that you could teach everything you needed to know about being creative out of a textbook. I don't think that will ever be the case because creativity is a function of your current environment, and environments change. What Steve Blank has been able to do is to create a template upon which institutions can grow their own programming, but it doesn't define the institution's programming and and that's certainly true at Columbia. Each school's environment brings something new to entrepreneurship and innovation education.

We have fully embraced design principles at Columbia Entrepreneurship, Innovation and Design. While LLP is design based, there are a lot of design elements that can much more significantly enhance pedagogy in this space and in traditional instruction. A natural evolution of the Lean LaunchPad program is to use its methodology and to use design elements in the field, in the prototyping spaces, and in other programming.

The transition from a start-up to something that actually has significant roots in the ground has been much written about but not much studied. That's an area that we are starting to focus on at Columbia. It makes sense, right? We've been a startup economy for the last decade. A lot of these companies have made it. Many have fallen. It's worth knowing why those that have made it, made it. It's worth knowing why those that have fallen, have fallen. To create a learning guide to see if one can make the process of taking root better and more efficient.

PB: One of the things that we are seeing is intrapreneurship at large corporations. Is that what you're referring to when you're talking about entrepreneurship at scale?

RW: Not necessarily. WeWork is an example of a start-up that has scaled or is still in the process of scaling. Compass is another example in the same kind of space. Both WeWork and Compass have come to their strengths and their positions through different paths. And even though SoftBank has funded them both, they've done what they've done differently.

One could take a look at those two companies and say that WeWork is much larger terms of capitalization but Compass is much more stable and Compass, in my opinion, is much more likely ability to grow in a controlled way. Why? What happened? What are the differences? Some of it is the personality of the founders and I think that's certainly an important factor to look at but some of it is just the business plans that they've employed. And the patience that they've employed. That's what I mean by looking at entrepreneurship at scale.

The phenomenon of intrapreneurship is also very interesting. Does one form more creative thought processes in companies through acquisitions, which has certainly been the way Apple has done it and Amazon has done it. Or can you create what we used to call "skunk works" in a big organization? A great example of that in the finance industry is Wall Street's foray into intrapreneurship. I think that's very interesting, but I was referring to the homegrown companies moving to scale in a way that creates stability, and how they organize at scale.

PB: You've stated that the leverage that the Hacking for Defense class creates is the most exciting part and that you envision using similar processes to focus on topics like public health, smart cities and mass migration. What do you mean by leverage? Would you advise other universities to implement similar Hacking for X programs?

RW: The Hacking for Defense program has created a safe template for us and 23 other universities to test the proposition as to whether this approach works, whether students like it, and whether faculty like it. It's "safe" because the problem sets that we get to work on are highly curated. There are mentors that are assigned from each of the Department of Defense units and and there's a government organization that makes sure that they pay attention to this. With that kind of curation and with that kind of control, we've been able to bring H4D to our students and bring it to our faculty and learn that they love this stuff. The class is oversubscribed. We have faculty coming out of the woodwork who want to engage in this.

The next level is taking this approach to pedagogy when we don't have a very large government organization curating the problems and, in some cases, funding the process. And getting sponsors to pay attention. That's complicated. In a hypothetical example, suppose XYZ organization wants students and some faculty to work on a weather-related agricultural issue like optimizing crop conditions in Guatemala. This may be a fantastically interesting project and we have expert faculty who want to engage in this and we have smart students who want to engage in this.

In building this class, how would we make sure that the Guatemalan agricultural agency actually curates the problem sufficiently well so that we can be efficient in a semester? How would we make sure that when one of our students writes an email to the person that's heading this project, that that person actually responds in a timely way? How would we make it safe for our students to travel there? That's the next level of complication.

The prototyping and test-casing that Hacking for Defense has provided is clear. This is a fantastic way to teach! It's a fantastic way to engage and, equally important, it's a fantastic way for a university to make itself relevant in the real world. Not just by teaching but by trying to solve real problems. Columbia University has a program called Columbia World Projects whose avowed purpose is to bring resources together not just to study a problem but to solve a problem. H4D in a microcosm does the same thing. We are big believers in this.

What we're working on now is how do we organize the process internally and with third-party partners so that we can make the problem curation and the processes as seamless as the Department of Defense has done for Hacking for Defense.

PB: I will be interviewing Tom Byers from Stanford on ethics in entrepreneurship, which is recognized as an important element of a university entrepreneurship education. How does ethics thinks fit into Columbia Entrepreneurship?

RW: Ethics doesn't just fit into Columbia Entrepreneurship, ethics fits into everything. Law is about ethics; public health is about ethics; business is about ethics. I say that as someone who was a practicing lawyer, and who was a bond guy and currency guy on Wall Street. In my view, ethics only exists in context. We're not talking about the platonic good here. We're talking about what is reasonable. What makes sense. What's fair in the context of a public health system, in the context of an immigration system, and so on and so forth.

Teaching ethics has to be done contextually. For example, if we're working on a data project, then we should be talking about the ethics of data, the ethics of privacy, and the ethics of truth, and making sure the algorithms aren't selective algorithms, but are true algorithms. That's a contextual thing and it starts on day one. It doesn't start after you founded your company, and you can't say "Oops. I don't have to worry about what the implications are."

Do we teach it directly? Not as much as we should. That's a big issue for every institution. Bringing the ethical conversations into the classroom from the first day is something that we've become very sensitized to. I'm not sure we've developed that as an art the way we should. We need to be sensitive about that.

PB: I look forward to my interview with Tom Byers and get his insights to be shared across the community. Many universities are struggling with inclusivity in entrepreneurship. What is Columbia doing to encourage inclusivity?

RW: On the gender side, we don't have an inclusivity problem at Columbia. When I look at all the data, we have more women-led businesses than men-led businesses that win our competitions. We have equal numbers of women run businesses and men run businesses at our Startup Lab in SOHO. New York may be different. On the gender side at this generational level, we're feeling pretty comfortable, but we're mindful not to assume that equality is a forgone conclusion – at the Lab, for example, there are regular Women Founders events hosted.

On the race side and on the ethnicity side, it's a very fair question. I'm not an expert on this but I do think that it is something that we need to be very sensitive to. I don't know if anyone has really figured it out correctly and it's an issue.

One of the things that we are sensitive to is showing diversity in the founder stories we tell, not only to promote inclusivity but also startup strength comes from diversity. An idea goes farther when there are more points of view drawn into it, and we need a diverse entrepreneurship ecosystem to make a real impact on all the opportunities and challenges out there. We certainly take that to heart as we look to push entrepreneurship and innovation education forward, that our team and advisors has people from diverse backgrounds and disciplines.

PB: You talked about being entrepreneurial about entrepreneurship; that you're running Columbia Entrepreneurship as a start-up. How do you decide which new programs to add? Do you ever sunset programs? Which ones have you terminated and why?

RW: I'm a personal believer in starting small, which goes back to my business career. When we think we have an idea that is worth pursuing, we prototype it, and we start it small; we're patient; we figure that if we've kind of got it right, "They will come." By that I mean, we will get interested faculty, interested alumni who want to participate, and the engagement will help us make it stronger.

None of the things that we've done have started big. They've all started very quietly. My colleague Dave Lerner calls this approach "guerilla-style": Set up shop on the fringe of the forest and see if it works and if it works, then we start to grow it. This keeps us true to our mission.

We have sunset programs but with all those programs that we've sunset, cut or shutdown have happened relatively early. We failed early and I'm a big believer in that. Failing early is a good thing. Could we possibly have salvaged some of these programs if we have stayed with it a little bit longer? Maybe, but not likely.

PB: The audience for our interviews is more than 400 university entrepreneurship center directors and program administrators. What would you recommend for universities who are just getting started with their entrepreneurship centers and entrepreneurship programs?

RW: There are three basic models that have been used to think about organizing a focus on entrepreneurship and innovation.

- One model is school-centric. For example at Stanford or MIT, there's a dominant school; in those examples, the engineering schools are in the leading position. At Harvard, here's a dominant school, the Harvard Business School. Dominant not just overall, but dominant in developing entrepreneurship education at that institution. What Harvard and MIT and Stanford have done is then organize their university-wide entrepreneurship efforts around that strong school. Not fought it, but bought into it, and amplified it across the university.

- Another model is what we've done and, I believe, NYU has done the same thing. NYU was a model for me as I looked at them. Without one dominant school, we collectivized our entrepreneurship education efforts under the president's office and we built an umbrella organization that sought to support each of the various schools at Columbia. Our organization tried to fill in the interstices that those other schools weren't filling for any number of reasons.

- A third model is to start the entrepreneurship center of gravity wholly outside of the university on an alumni basis. Under this model, a bunch of alumni get together with someone from the inside and they start an incubator or an accelerator program for students. As that program starts to develop, part of the school takes notice as to what's going on and that parlays itself into other matters at the University.

Those are the three kinds of models I've seen that seem to be successful.

At the very beginning, Steve Blank told me (and I took this to heart, because I believe he's right) that if you want to be an integral part of the institution, you have to engage faculty. It's much easier not to engage faculty. It's much easier, because curriculum is a highly regulated field. It's the same reason entrepreneurship didn't start in finance because finance can be a pain in the neck.

Entrepreneurship started in software, which was completely unregulated. But in order for entrepreneurship and innovation education to be big, real and meaningful to the institution, faculty need to be engaged, whether that's on a curricular basis or even on an advisory basis. It also means that the tech transfer office at the university is an important ally in this whole process because they are faculty oriented.

In giving a bit of advice, faculty is the hardest to engage with because of the regulatory structure of an institution. So we started with alumni, then students, then faculty. However, you're not complete unless you ultimately engage your faculty. You'll never get to the core of the organization unless you engage faculty.

PB: For the second model, did you work with Frank Rimalovski at NYU?

RW: Yes, Frank and I have had many conversations. Frank is fantastic and has done a great job at NYU.

PB: My interview with Frank Rimalovski on NYU's Entrepreneurial Institute is available on the TrustedPeer Entrepreneurship Advisory site. In addition, Orin Herskowitz of Columbia's tech transfer office is currently responding to questions that I submitted to him for publication this fall.

RW: Orin and I work very closely together. We have we have a lot in common, but we purposely keep our organizations separate. The Columbia technology transfer office represents interests of the university, and specializes in supporting faculty with IP licensing. We represent all of the constituent parts of the University – including students, alumni, and the individual schools - not just the university itself.

PB: A number of universities have implemented entrepreneurship majors, minors and certificates. For example, at the University of Colorado at Boulder in the School of Music, you can minor in entrepreneurship. Where does the curriculum part of entrepreneurship fit into the overall structure?

RW: It's on a school by school basis. Columbia is comprised of 17 schools and institutions, most of which are completely sovereign. Depending upon which "nationality" you're involved with, it will be a different story. Because of that complexity, there's no one-size-fits-all for us. We can talk about how each school deals with it. What's important is that there really is a curriculum, that there's a sequence to how its taught, and there is a filtering process as you get more and more advanced. There's some curation that takes place.

For example at our business school, there are courses in introduction to entrepreneurship and innovation. There are next level classes that are taught in which you start a venture and run it in an experiential, hands-on way. For the very top people who go through that filter or go through that funnel, there's a program called Greenhouse in which student businesses or ventures are funded by the business school. To the extent that they actually make it, the business school may actually invest in them in a fund that was set up by a Columbia Alumnus.

Every school will be different, but where I get tough is that all of these classes have to be Columbia-quality classes. And that's where engaging the faculty makes sense. It's not "puff". If you're going to take this class, it's going to be as hard a class as any other class in that school. Because if you don't do it that way then it becomes the "rocks for jocks" phenomenon. It's bad for the mission. There needs to be a rigor. However rigorous the school, the entrepreneurship program should be no less rigorous academically and intellectually.

We also encourage interdisciplinarity in all the programming we create.

PB: What's next for a Columbia Entrepreneurship? What what do you see over the next few years?

RW: Design has really taken hold at the University. I would aspire for the Entrepreneurship, Innovation and Design program to grow in the area of design.

The Stanford D.School is somewhat unique. There are other design schools but none that serves the same kind of purpose for the university as the Stanford program. For a place like Columbia, a real design school would enhance everything that the University is doing. Our president, Lee Bollinger, has instituted a program called Columbia World Projects, which is, "Don't just write the paper; enact the paper." There are massive design elements that need to be employed in that transition from knowledge to research to action. Design fits perfectly with not just our mission in entrepreneurship and innovation education, but with our university-wide mission.

Another significant ambition that we have is the notion of experiential learning and to try to blow that out significantly. What makes entrepreneurs so valuable to our society and to our economy is that they solve problems. They find problems worth solving, problems that haven't been solved already, and they just solve it; they fix it. That has great social value; it has great climate value; it has great energy value; it has great business value.

We used to say that entrepreneurs can't be taught, they have to be born. I don't believe that any more than I think great heart surgeons can't be taught. These nodes of experiential learning, of getting your hands dirty, actually solving problems, is as core an element is as any part of our entrepreneurship activity. I see that growing significantly over the next few years.

The next ambition for Columbia Entrepreneurship would also be civic engagement. This country has very large institutions - some governmental, some business - that don't necessarily function as fairly and as efficiently as they could. Some of them have been enlightened, and we know that's possible from examples like the Department of Defense.

People from my vintage would never have wanted to work with DOD, but now, you want to work with DOD because they're open and they're innovative and they want to solve issues in a constructive way. Well, let's make that happen in more places – for example, there are health care systems that aren't functioning effectively these days. We need entrepreneurs in those systems to solve problems.