



PRINCETON
ENTREPRENEURSHIP
COUNCIL

TIGER

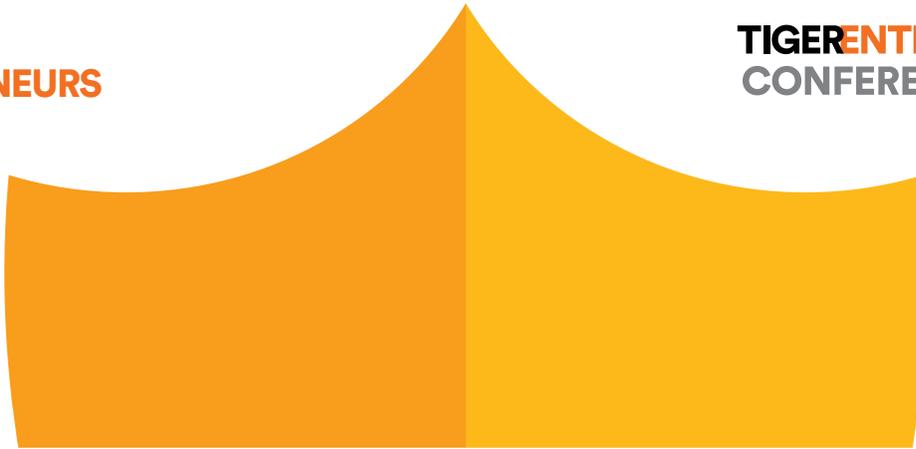
ENTREPRENEURS

Vol. 1, No. 2

TIGERTALKS
IN THE CITY

ALUMNI
ENTREPRENEURS
FUND

TIGERENTREPRENEURS
CONFERENCES



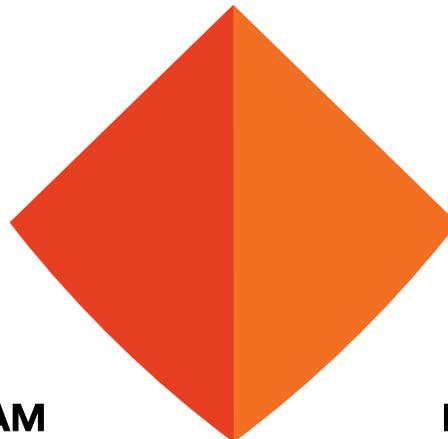
PRINCETON
INNOVATION
CENTER

OFFICEHOURS
IN THE CITY



SILICON VALLEY
STARTUPROADSHOW

PRINCETON
ENTREPRENEURSHIP
CERTIFICATE



PROGRAM
COORDINATION

POLICY
ADVISORY

ENTREPRENEURSHIP **THE PRINCETON WAY**

AT A GLANCE: PEC YEAR **1**



22 AEF portfolio companies and counting



12 Seniors graduating with a Certificate in Entrepreneurship*



*In collaboration with the Keller Center.

4 **TIGERTALKS IN THE CITY**
800+ attendees



34 Entrepreneurs mentored by 6 office hours in the city mentors
OFFICE HOURS IN THE CITY

9 Faculty & Alumni companies pitched to 8 VC firms



SILICON VALLEY STARTUP ROADSHOW



2 Rounds of Town/Gown Entrepreneurship Collaboration Meetings

1 Princeton Innovation Center, *opening this fall*

STAY IN TOUCH

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f Like PEC on Facebook:
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SAVE THE DATE

Tiger Entrepreneurs Conference

Boston, MA

October 19-20



2016/17

AEF Invests in New Alumni Startups



“ AEF is a monumental force for innovation and entrepreneurship among Princeton alumni. ”

On January 28, the Alumni Entrepreneurs Fund (AEF) Feedback Panel met at Venrock’s Palo Alto offices to listen to and review the pitches of the Fall 2016 finalists. Following the feedback panel’s recommendations, Provost David S. Lee *99 announced that AEF will make an investment in two companies: BoxPower and WellSheet.

In addition to seed funding, the alumni founders were drawn to AEF for the mentorship and networking opportunities it affords. “The program opens up with a once-in-a-lifetime opportunity to pitch to some of the most influential venture capitalists in Silicon Valley,” said Craig Limoli ’12, founder of WellSheet. “Such an audience would be impossible to gather anywhere else, and the chance to continue a relationship with mentors from that group is invaluable.” Aaron Swartz ’17, co-founder of BoxPower, agreed: “AEF’s Feedback Panel Day was more than an investment opportunity; it was a rare and inspiring occasion to receive honest feedback from over a half-dozen distinguished alumni, a meeting with any one of

whom would have been a privilege.”

Not only does AEF help cultivate relationships between established alumni and recent alumni startups, it also offers an educational component critical to fledgling companies. “AEF opens up a wealth of resources paramount for an early stage company at a time when we need it most, to establish ourselves in the market,” Limoli said. “AEF is a monumental force for innovation and entrepreneurship among Princeton alumni.”

AEF will be investing in several new startups this spring. Applications for the Fall 2017 round open in September.

Silicon Valley Roadshow

On April 6 and 7, in Mountain View, CA, Princeton Entrepreneurship Council (PEC) sponsored its first Startup Roadshow. Nine companies, each with a faculty member or alumnus serving in a founder or senior executive role, pitched to eight established VC firms headquartered in the Bay Area for Series A funding.

From an initial pool of almost 40 applicants, the nine Princeton startups were selected by an alumni panel of venture capitalists and seasoned entrepreneurs. These startups represented technology-based businesses in health care, travel, information security, battery diagnostics, STEM tutoring, educational toys, solar power, quantum computing and 3D-printing resins. Two of the startups were faculty-led, two were AEF-funded companies, and five were led by other Princeton alumni.

The participating VC firms to whom they pitched were Artiman, Emergence, Greylock, Intel Capital, Propeller, Redpoint, Sequoia Capital and Venrock.

In addition, PEC co-hosted an alumni reception and networking event during which each of the companies presented a brief overview of their companies to about 120 alumni and guests.

The law firm Fenwick & West provided space for both the roadshow and alumni reception.

Princeton Startups

Beyond Pricing, Catalia Health, polySpectra, Quantum Circuits, Inc., SMASHSolar, LightUp, Piper, Feasible, Giant Oak.



TigerTalks in the City: Design Thinking



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The evening's topic was "Design Thinking," a buzzword that leaves many people impressed with its impact but perplexed by its meaning. The panel, moderated by Entrepreneurship professor Derek Lidow '73, aimed to shed light on what Design Thinking is and why the methodology has gained momentum at Princeton.

Senior Rebeca De La Espriella '17 opened the discussion with a working definition of Design Thinking, describing it as "a problem-solving methodology that takes a human-centered approach." Like any other academic methodology, Design Thinking is rigorous, requiring extensive

research and synthesis. The distinction, however, lies in Design Thinking's emphasis on empathy. The tools leveraged in Design Thinking, such as ethnographic interviews and user personas, are focused on creating a desirable solution for end users. "With any solution, one must consider its feasibility, viability and desirability," De La Espriella said. "But it's desirability that is really the key to getting a solution off the ground—it's what can cause the simplest solutions to skyrocket and even the most well-funded solutions to crash."

From Austin to Africa, the panelists have implemented Design Thinking's human-centered approach to develop desirable solutions in both the public and private sectors. Empathy is likely not the first word that comes to mind when one thinks of the private sector, but as a product designer and mechanical engineer, Annie Cardinal '15 uses Design Thinking to help her clients develop

innovative products. To come up with real solutions to everyday problems, Cardinal takes her clients through an ideation process, encouraging them to think about the problems their customers face and the many possible product-based solutions that might solve the problem. “The first solution we come up with probably isn’t going to be the final answer, and that’s OK, because that’s the best way to come up with the best solution,” Cardinal said.

Carolyn Rouse, Chair of the Anthropology Department, has found this nonlinear problem-solving approach to be a helpful way to explain her work, which is anything but linear. Rouse described ethnography, an anthropological term employed in Design Thinking, as “reverse engineering,” or the study of why things are successful and sustainable. Rouse gave a lighthearted example of ethnography: “I have a current student who is studying the popularity of brunch. What is it about a special day where people feel like they can eat as many calories as they want? What is it about avocado toast?” Rouse explained that by studying why something works, one can determine how it might be replicated in other contexts.

Design Thinking’s emphasis on discovering what people (or end users) find desirable and using these findings to develop solutions can be seen at work on Princeton’s campus. Rebeca De La Espriella shared an anecdote: “Professor Lidow tasked our class with mitigating sexual assault on campus, which was a pretty daunting problem.” After extensive research and interviews with the student body, the class came up with an idea for a bus that picks students up from the Eating Clubs on weekends, so students who feel uncomfortable have a safe, convenient means of getting home. “The U-Matter bus has been a huge success, which goes to show you that when you use the Design Thinking method and keep desirability in mind throughout, the solutions can be long lasting,” De La Espriella said.

Design Thinking is having a clear impact on campus and in the real world. But why should it be taught as part of Princeton’s liberal arts program? The panelists offered several compelling reasons. Rafe Steinhauer ’07, manager of Tiger Challenge, Princeton’s Design Thinking program, said that when creating the program, the theme he heard from students repeatedly was, “I want to have a really big impact, but I don’t know where to begin or how to do it.” Design Thinking provides a channel for students to impact their communities by connecting critical thinking and rigorous analysis to real-world problems, an objective at the heart of any liberal arts curriculum. For example, two of Steinhauer’s Tiger Challenge teams are working in education: one with a local school district to mitigate the impact of adolescent stress on mental health, and another with New Jersey’s Department of Education on solving the state’s teacher shortages. Other Tiger Challenge teams work on making housing affordable in Princeton, finding long-term careers for refugees in the area, and making Princeton a more sustainable city. This ability to solve a different kind of problem and look at the world in a new way is another pillar of the liberal arts and an integral part of Princeton’s informal motto: “In the Nation’s Service and the Service of Humanity.”

The future of Design Thinking at Princeton is a bright one. The recent creation of a certificate in Entrepreneurship includes many courses with Design Thinking at their core. Other departments, such as engineering and anthropology, have started to integrate the Design Thinking methodology into their existing curricula. Whether Design Thinking at Princeton becomes a freshman seminar or a core requirement remains to be seen, but its positive impact on campus and in communities bodes well for its continued permeation in the liberal arts and beyond.

For more information on upcoming TigerTalks in the City, visit entrepreneurs.princeton.edu/tigertalks.

Research with an Entrepreneurial Impact

In 2009, Professor MacMillan founded Chiomics, a company that designs libraries to access diverse stereochemical structures. “I felt there was important research to be done that could impact the pharmaceutical industry,” MacMillan said. “And because this research had commercial potential and its primary purpose wasn’t basic academic research, I felt strongly that it should be conducted outside of academia.”



Throughout the process of founding Chiomics, MacMillan made an important discovery about the connection between research and entrepreneurship: “I realized that just because something makes money doesn’t lessen the fact that it’s still going to be useful—the research can still have an impact.” The relationship between academia and entrepreneurial ventures has not always been perceived as symbiotic. MacMillan recalled, “For a long time, I think the culture at Princeton was ‘basic research is basic research,’ or that as academics, commercializing businesses is not what we’re here to do.”

Over the last decade, however, MacMillan believes this mentality has subsided, largely in part to the success Princeton faculty have had commercializing their research. “Now, the attitude is such that if you’re doing basic research and its value can be exported to many different people, that’s great. And if the research can be progressed and commercialized, there’s almost a responsibility to do it, especially if it’s going to benefit human health.”

MacMillan has experienced firsthand the obstacles many faculty entrepreneurs face. “For many academics, the hardest thing about embarking on

an entrepreneurial journey is not knowing how to get started,” MacMillan said. “They think, ‘This could be a useful commercial entity but I don’t have the proper business training or an MBA.’”

So what can Princeton do to address this problem? MacMillan believes that the university can make it more straightforward for students and faculty to launch their ideas with minimal challenges, which is the aim of the university’s Office of Tech Licensing. The department offers resources and funding for faculty looking to get their startups off the ground. “Once we educate the university community about the available resources, I think entrepreneurship at Princeton will become even more free flowing than it already is.”

And entrepreneurship on campus is certainly free flowing. MacMillan shared an illustration of the entrepreneurial spirit he’s observed: “In the sciences, we often focus graduates’ attention on jobs in pharma and academia. I wanted to hold a meeting to encourage students to consider entrepreneurial endeavors as another viable career option.” Turns out, the students didn’t need convincing. “The level of interest was spectacular,” MacMillan said. “We never had a higher attendance at a group meeting!”

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