

ANNUAL REPORT DECEMBER 2017



















From top left to right: Zachary Prell '05BUS, Founder of Zachary Prell | Susannah Vila '15BUS, Founder of Flip | Kesha Cash '10BUS, Founder of Impact America Fund | Scott Lee '14SEAS, Founder of Gooroo | Jordana Kier '14BUS, Founder of LOLA | Vinit Bharara '96LAW, Founder of Some Spider | Sona Shah '16SEAS (L) and Teresa Cauvel '16SEAS (R), co-founders of Neopenda | Donnel Baird '09BUS, Founder of BlocPower | Martin Varsavsky '83 SIPA, '85BUS, Founder of Prelude and Fon.

## COLUMBIA ENTREPRENEURSHIP, INNOVATION, AND DESIGN

Since 1754, the students in Columbia's classrooms have been developing a deep understanding of the world around them in order to create the world of the future. Our institutions have

always been a place where minds gather to solve the day's most vexing problems by coming up with solutions for tomorrow. Our graduates are stewards in every major industry.

In 2013, President Lee C. Bollinger and the Board of Trustees validated our mission to maintain this tradition by supporting, invigorating, and accelerating Columbia's culture around innovation, creativity, and entrepreneurship. This mission has fueled collaborations with the students, alumni, and faculty that make up our innovation communities—the brilliant minds across the Columbia who are making a positive impact on the world with their ideas.



If we are to become a university renowned for innovation and entrepreneurship, success must come from collaborations across domains, between our centers of innovation, and among the vast intellectual resources of our students, alumni, and faculty communities.

We are now in our fifth year of building on this impact through the development of pedagogy, programs, and partnerships that foster a spirit of innovation across campus and beyond.



To capture the full scope of our activities, we have rebranded to become 'Columbia Entrepreneurship, Innovation, and Design.'

The Collaboratory was perhaps one of our most exciting programs in that it is creating innovative pedagogy in an innovative way. In the Collaboratory's first year, 25 new interdisciplinary courses were created, ranging from urban planning and advertising to humanities and dentistry.

Please join me in reflecting on this past year of innovation at Columbia as we prepare for another year of learning, pivoting, designing, innovating, and implementing for the benefit of our Columbia community.

## **GO LIONS!**

Richard Witten '75CC Special Advisor to the President of Columbia University



107 ENTREPRENEURSHIP COURSES LISTED IN THE COLUMBIA COURSE CATALOG

> 1,817 ALUMNI FOUNDERS ACROSS THE COLUMBIA COMMUNITY



\$2.4 MILLION

NON-DILUTIVE GRANTS AWARDED TO **COLUMBIA STUDENT FOUNDERS ANNUALLY** 



**ENGAGED IN ENTREPRENEURSHIP PROGRAMS OR PEDAGOGY** 



WORKING IN VENTURE CAPITAL









3,874 STUDENTS & ALUMNI

ATTENDED OUR FIRST FOUR STARTUP COLUMBIA FESTIVALS



ENROLLED IN THE COLUMBIA STARTUP LAB IN THE FIRST FOUR YEARS



COLUMBIA

**VENTURE COMPETITION** 

\$24.6 MILLION

FUNDS RAISED BY TEAMS IN THE STARTUP LAB











1 OF THE LARGEST STUDENT CLUBS **ON CAMPUS** 

**5.389 MEMBERS** REGISTERED



**63 UNDERGRADUATE** STUDENT LEADERS





DOLLARS IN CASH GRANTS DISTRIBUTED TO CVC WINNERS IN THE LAST FOUR YEARS



**423 ALUMNI** 

JUDGES FROM BEIJING TO BROOKLYN SCORING THE CVC **ENTRIES OVER THE LAST FOUR YEARS** 



**846 TEAMS** 

OF STUDENT AND RECENT-ALUMNI COMPETED IN THE CVC IN THE LAST FOUR YEARS







25 NEW COURSES CREATED INTEGRATING DIGITAL SCIENCES INTO THE CURRICULUM **ACROSS COLUMBIA** 

#### **32 TEAMS**

SOUGHT DATA SCIENCE GUIDANCE IN FIRST YEAR OF **COLLABORATORY DATA CLINIC** 

## **30 STUDENTS & POST DOCS**

ATTENDED DATA SCIENCE COLLABORATORY BOOTCAMP

#### 16 COURSES

TAUGHT IN THE STUDIO IN THE LAST TWO YEARS





#### 6 OF 15 WINNERS

OF THE COLUMBIA VENTURE COMPETITION 2017 HONED THEIR PITCHES AT THE DESIGN STUDIO



COLLAB©RATORY

AT COLUMBIA UNIVERSITY

## **45 COLUMBIA FOUNDERS**

RECEIVED PRO-BONO STARTUP LAW GUIDANCE AT THE LAW STUDIO

#### 12 COLUMBIA LAW STUDENTS

**OBSERVED HOW REAL-WORLD CLIENT CONSULTATION WORKS** 



**3 NEW ENTREPRENEURSHIP COURSES** LAUNCHED IN THE LAST TWO YEARS

## **COLUMBIA AND NYC**

## 44

If we are to become a university renowned for innovation and entrepreneurship, success must come from collaborations across domains, between our centers of innovation, and among the vast intellectual resources of our students, alumni, and faculty communities.

## ON-CAMPUS COMMUNITY OF COLLABORATORS

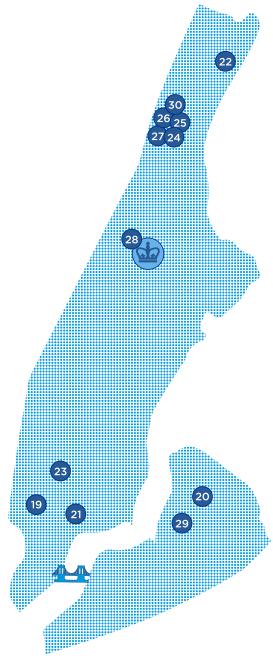


## COLUMBIA ENTREPRENEURSHIP INNOVATION DESIGN

- 2 Entrepreneurship@Athena, Barnard
- 3 EdLab at Teachers College
- 4 Columbia Engineering Entrepreneurship
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- 6 Columbia Entrepreneurship Design Studio7 Columbia Entrepreneurship Law Studio
- 8 Columbia Organization of Rising Entrepreneurs
- Brown Institute for Media Innovation

- Oclumbia Law Entrepreneurship Society
- Columbia College Entrepreneurship Initiatives
- 12 Res. Inc.
- Global Social Entrepreneurship at SIPA
- Summer Startup Internship Program & Startup
  Job Fair at the Center for Career Education
- 15 Tamer Center for Social Enterprise
- 16 Columbia Technology Ventures
- 17 Metaprop Pre-Accelerator at Columbia
- 18 Columbia Bartending Agency (CBA)

# FOSTERING A NETWORK OF INNOVATION COLLABORATORS ACROSS CAMPUS AND ACROSS TOWN



COMMUNITY OF CO-WORKING SPACES AND ACCELERATORS ACROSS NYC

- 19 Columbia Startup Lab
- 20 New Lab
- 21 GSAPP Incubator at the New Museum
- 22 The Campbell Sports Center
- 23 MetaProp NYC Accelerator
- 24 Accelerating Cancer Therapeutics
- 25 Columbia Biomedical Accelerator

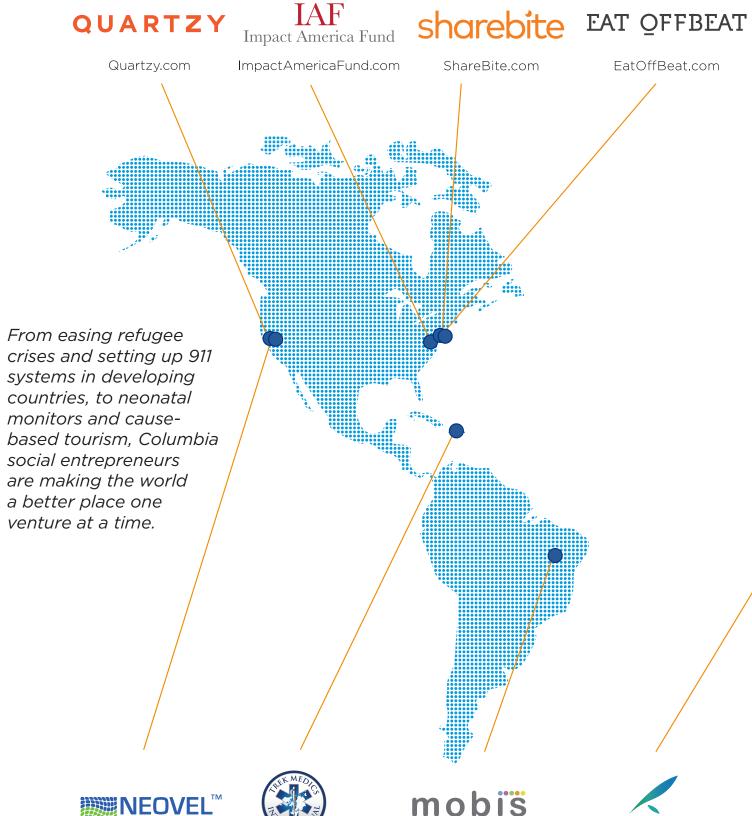
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- 27 Mailman School of Public Health
- 28 Powerbridge NY
- 29 NYC Media Lab
- 30 Columbia University Medical Center



INTERACTIVE MAP: InnovationMap.Columbia.edu

## **GLOBAL INNOVATION** WITH A SOCIAL MISSION

## **COLUMBIANS TURN INNOVATION INTO** IMPACT ON A GLOBAL SCALE













Neopenda.com

Kidogo.co

miemana.







**Technologies** 

## **FUNDING SOURCES**

Each year, in a multitude of highly competitive programs, Columbia grants **\$2.4 million** to startups across campus through its programs. Here are just a few.

#### Columbia Venture Competition (CVC)- \$250,000

The CVC has five tracks or challenges, open to all students and recent alumni from the worldwide Columbia community. CVC judges come from across Columbia's worldwide alumni community from Brooklyn to Beijing, representing diverse backgrounds and wide-ranging sets of expertise.





## Lang Fund- \$200,000

The Eugene M. Lang Entrepreneurial Initiative Fund fosters an entrepreneurial environment at Columbia Business School by providing early stage investing opportunities to qualifying student business initiatives.

# \$2.4 MILLION

#### Tamer Fund- \$175,000

The Tamer Fund for Social Ventures ("the Fund") provides seed grants to nonprofit, for-profit, or hybrid early-stage Columbia University affiliated social and environmental ventures.



The Tamer Center for Social Enterprise



#### **Innovation Grant- \$110,000**

This grant identifies driven undergraduate entrepreneurs with brilliant innovations and aims to—with a little mentorship in funding—turn innovations into applied solutions.

## IT TAKES MORE THAN IDEAS AND GRIT TO GET A STARTUP OFF THE GROUND



#### cFUND Ignition Grants- \$50,000

The Columbia Engineering cFUND Ignition Grants are financial grants to assist Columbia University students in launching new businesses, social and not-for-profit ventures. The Grants support the initial stages of early venture development from formation and IP protection to building prototypes and creating proofs of concept.

## Magic Grants- \$500,000

Through its Magic Grants program, the Brown Institute at the Columbia School of Journalism annually awards grants designed to encourage and support new endeavors in media.

## THE BROWN INSTITUTE FOR MEDIA INNOVATION



## POWERBRIDGE NY

## Powerbridge Accelerator- \$100,000

Teams are given funding to conduct customer discovery, identify their initial target market, and to develop prototypes to conduct in-field testing and move the energy-related technology closer to commercialization.

## **Translational Therapeutics Accelerator- \$300,000**

The Translational Therapeutics Resource (T-Rx) is an accelerator program designed to leverage Columbia's proficiency in drug discovery and provide access to industry experts with the goal of advancing novel therapeutics from the lab towards the path of commercialization.



## COLUMBIA UNIVERSITY MEDICAL CENTER

Translational Therapeutics Resource



#### **NYC Media Lab- \$125,000**

NYC Media Lab is dedicated to driving innovation in media and technology by facilitating collaboration between the City's universities and its companies.

#### Columbia Biomedical Accelerator- \$680,000

The BioMed Accelerator grants serve as a bridge from proven concept to commercial investment.



## **FUNDING HIGHLIGHTS**



## OncoShell, \$114,000 Columbia Biomedical Accelerator Grantee

Laura Kaufman, PhD, Asja Guzman, PhD, and Kevin Kalinsky, MD, founded OncoShell, which provides rapid drug sensitivity testing for breast cancer patients that increase the odds that the best therapy is chosen for each individual patient. COLUMBIA BIOMEDX
Biomedical Accelerator



## **Streetmate, \$15,000 Undergraduate Innovation Grant Awardee**

Micahel Pusic '19CC founded Streetmate to distill complex resource directories for homeless shelters into a few simple questions and recommendations which incorporate user location, demographic, hours of operation, and shelter capacity. With a few taps, Streemate brings users closer to shelter.





## Thread Counsel, \$50,000 2017 Lang Fund Recipient

Carly Bigi '17BUS founded Thread Counsel, which designs and manufactures perfect-fitting women's workwear that is customized to each woman's size and style preferences using data science.

Columbia Business School
The Eugene Lang Entrepreneurship Cent



## Folia Water, \$25,000 Tamer Fund for Social Ventures Grantee

Folia Water, co-founded by Jonathan Levine, '04CC, '11SEAS and Theresa Dankovich, produces affordable nanosilver-infused water filter papers that eliminate bacteria, viruses, and other pathogens, making water safe to drink for only 1¢ per person, per day.





## **Voyant Photonics, \$25,000 first place winner in the Columbia Venture Competition-Technology Challenge**

PHOTONICS

Promising a disruption in the driverless car industry, Voyant Photonics co-founder Chris Phare '17SEAS, aims to replace cumbersome and expensive mechanical mapping technology with tiny LiDAR chips that can be mass produced.



## FiveOne Labs, \$15,000 first place winner in the Columbia Venture Competition-SIPA Dean's Challenge

Sophia Burton '17SIPA, Patricia Letayf '17SIPA, and Alice Bosley '17SIPA created the first incubator for displaced and conflict-affected entrepreneurs in the Middle East.

















From top left to right: Matt Bachmann '15BUS and Ben Gordon '15BUS, co-founders of Wandering Bear Coffee | Adrian Gradinaru '14CBS and Delphine Braas '14CBS co-founders of Sailo | alumni judges Kevin Tung '01SEAS and Leslie Gittess '88CC | StartupColumbia Challenge Winners 2016.

# COLLABORATORY

## **AT COLUMBIA UNIVERSITY**

Co-founded by Columbia Entrepreneurship and the Data Science Institute, the Collaboratory seeks to teach all students, across all traditional domains how to use the tools of data and computational science.









JOURNALISM

URBAN PLANNING

BUSINESS ANALYTICS







ARCHAEOLOGY



COMPUTER SCIENCE

























Data science is indispensable to virtually every scholarly initiative at the University dedicated to addressing a societal problem.

-Lee C. Bollinger

## DATA AND SOCIETY

The increasing availability of data and computational power in society is impacting our world in profound ways. As our ability to generate, store, and analyze data grows by the day, so do the opportunities for using those data to improve our economy, our security, the environment, and human health.

In order to be effective, the leaders of tomorrow—whether they pursue careers in academia, government, business, industry or other avenues—will need to understand how data and data-science are influencing their fields and organizations, now and into the future.

## THE FIRST 11 INTERDISCIPLINARY COLLABORATORY PROJECTS ARE ALREADY YIELDING 25 NEW COURSES







POINTS UNKNOWN: NEW FRAMEWORKS FOR INVESTIGATION AND CREATIVE EXPRESSION THROUGH MAPPING

A collaboration between Columbia Journalism & GSAPP

#### PROGRAMMING, TECHNOLOGY, AND ANALYTICS CURRICULUM FOR COLUMBIA BUSINESS SCHOOL

A collaboration between Columbia Business School & Columbia Engineering













ANALYSIS TO ACTION: HARNESSING BIG DATA FOR **POPULATION HEALTH** 

A collaboration between Biostatistics & Health Policy and Management at the Mailman School of Public Health

#### DATA: PAST, PRESENT, AND FUTURE

A collaboration between Columbia College & Columbia Engineering











#### DATA SCIENCE FOR IMAGING THE PHYSICAL WORLD

A collaboration between Electrical Engineering & Arts and Sciences

#### COMPUTATIONAL LITERACY FOR PUBLIC POLICY

A collaboration between the School of International and Public Affairs & Computer Science







## THE COLLABORATORY









A collaboration between Anthropology & the Lamont-Doherty Earth Observatory

## THE SEARCH FOR MEANING IN BIG DATA: PATTERNS, REPRESENTATION, AND EMPATHY

A collaboration between the Lamont-Doherty Earth Observatory, Columbia Engineering, & the Computer Music Center











IN VIVO MAGNETIC RESONANCE SPECTROSCOPY—FROM DATA TO CLINICAL BENEFIT

A collaboration between Biomedical Engineering & Psychology and Radiology

## DDS SQUARED: DIGEST OF DATA SCIENCE (DDS) FOR DOCTORS OF DENTAL SURGERY (DDS)

A collaboration between the College of Dental Medicine & the Mailman School of Public Health





#### WHAT IS A BOOK FOR THE 21ST CENTURY

A Collaboration between Arts and Sciences & Columbia Engineering





The need to teach the digital sciences to Columbia students is clear, but we are pressed for time. Many of these courses simply don't exist elsewhere across Columbia. Fortunately, the impact of your gift is felt almost immediately. In most cases, it takes only one academic year for classes created through the Collaboratory to be offered in the course catalog.

## For information to support the Collaboratory, contact Collaboratory@Columbia.edu

## FUELING INTERDISCIPLINARY CURRICULAR INNOVATION



Second-year MBA students return from their summer internships to report that in order to compete for the best jobs, they need the type of computational and technical foundations that we're developing with the grant from the Collaboratory.

> -Columbia Business School Professors Costis Maglaras and Hardeep Hohar

## **DATA SCIENCE + BUSINESS**

## "Programming, Technology, and Analytics Curriculum for Columbia Business School"

Columbia Business Professor Costis Maglaras and Columbia Engineering Professor Hardeep Hohar collaborated to create a cross-disciplinary curriculum for MBA students.

Most of the 1,300 students that arrive at Columbia Business School each year have little or no computational, programming, or technical backgrounds. Yet, close to half of these students aspire to careers in organizations where these skills are essential. These students know that tech workers have moved from the back office to the C-suite.

With this new series of courses, Columbia Business School and Columbia Engineering will prepare students to succeed in this data-intensive world with a curriculum focused on computer programming and the latest techniques for gathering, managing, and interpreting data.





#### **Foundation Courses**

- Intro to Python
- Intro to Databases
- Digital Literacy
- Data Analytics in Python

#### **Elective Courses**

- Web Application Programming
- Quantitative Pricing & Revenue Analytics
- Internet & Online Advertising
- Sports Analytics
- Business Analytics
- Online Markets

## A DEEPER DIVE INTO THREE PROJECTS

## **DATA SCIENCE + HISTORY**

#### "Data: Past, Present, and Future"

Applied Physics and Applied Mathematics Professor Chris Wiggins and the James R. Baker Professor of Contemporary Civilization, Matthew Jones, collaborate to put data into the context of our society.

The science requirement of the Columbia Core, like its humanistic components, proposes to enable students "to understand the civilization of their own day and to participate effectively in it." The civilization of our day is one saturated, improved, manipulated, and transformed through the accumulation and analysis of data. In this same spirit, this course precisely allows students both from SEAS and from Columbia College to understand our civilization of data and to be critical and effective participants in it. The course introduces students to both the science of data and impact of data on the world around them.







The civilization of our day is one saturated, improved, manipulated, and transformed through the accumulation and analysis of data.

-Professor Matthew Jones

## DATA SCIENCE + PHYSICS + DATA VISUALIZATION

#### "Data Science for Imaging the Physical World"

Modern imaging techniques in the physical sciences produce large, multidimensional data sets. Understanding the scientific information content in these data sets is a significant challenge. Modern data science techniques have the potential to make a transformative impact on the use of these data sets. However—until now—we didn't have course offerings that brought the physical sciences and the data sciences communities together.

This course will:

- Introduce large data-based problems in the physical science
- Introduce basic techniques of data science
- Apply these techniques to examine problems chosen from research at Columbia

The physical sciences are data-driven and have produced large data sets long before the "Big Data" era. However, the analysis of the data in the past was typically performed by individuals with limited access to computational tools and methods.

For data science students, this course will provide an accessible introduction to some of the most useful tools for acquiring and analyzing imagery data, and will allow students to see these methods in context as serving the larger goal of scientific discovery.





PHYSICAL SCIENCES





These two new courses explicitly aim to develop baseline standards for digital literacy and sustainable methods of teaching in multidisciplinary teams at Columbia.

-Professor Pamela Smith

## **HISTORY + COMPUTER SCIENCE**

## "What is a Book for the 21st Century"

This unique collaboration is between Seth Low Professor of History and Director of the Center for Science and Society, Pamela Smith, and Columbia Engineering Computer Science Professor Steven Feiner, and Librarian and Scholar of the Digital Humanities, Terence Catapano will result in two co-taught Digital Humanities/Computer Science courses open to graduates and advanced undergraduates. These two new courses explicitly aim to develop baseline standards for digital literacy and sustainable methods of teaching in multidisciplinary teams at Columbia.





The courses will bring together faculty, students, and scholars of the humanities and social sciences with those of the digital humanities and computer science to rethink the book as a scholarly object for the 21st century from the historical perspective of the early modern world. The courses will be a platform for collaborative experimentation with new methods of historical and digital research, asking students to think outside traditional scholarly approaches and to explore new ways of thinking about communication and

COMPUTER SCIENCE

technologies of knowledge production, as well as a platform for meaningfully incorporating these methods into their own work and demonstrating their resulting skills.

The introductory digital humanities seminar in Spring 2017 will engage students in reconsidering the history of the book, by giving them the necessary digital skills to collectively create a digital minimal edition of a 16th-century technical manuscript, as part of the larger research initiative, the *Making and Knowing Project*. The advanced computer science seminar in Spring 2018 will be paired with a history course to build upon the work of the introductory seminar, engaging interdisciplinary teams of humanities, social, and computer science students. These courses will build digital skills, model collaborative working methods, and foster critical thinking about knowledge production in order to prepare students for careers shaped by the methods and possibilities of the digital world.



For Data science students, this course will provide an accessible introduction to some of the most useful tools for acquiring and analyzing imagery data.

-Professor Abhay Pasupathy Narayan



For information to support the Collaboratory, contact Collaboratory@Columbia.edu



"Human-centered design" gives entrepreneurs, students, and faculty an agile approach to gaining critical customer insights.

#### **Designing for Success**

The Design Studio teaches customer-centric methodologies for developing innovative and practical solutions to ill-defined problems. From high-tech websites to low-tech infant warmers, human-centered design leads to the creation of great solutions through a deeper understanding of people and their needs.

#### **How Design Thinking Works**

The human-centered design approach is a creative process that helps innovators glean insights and develop appropriate solutions for tough challenges. It begins with innovators establishing a deep understanding of needs—their own needs, their target market's, or the needs of their end users—in



order to then frame problems, rapidly generate prototypes, and build viable solutions.



#### **EXPLORE**

The first phase of the design process is to develop empathy for your user, the person for whom you are creating a solution. By the end of your exploration, you will develop great insights that will help you build a solution that fits their context.



#### **REFRAME**

In human-centered design, your initial assumptions are generally never completely correct. After gaining deep user insights, it's time to come back and reframe the information you've learned and start to see where your ideas and solutions can fit into the bigger picture.



#### **GENERATE**

Developing a creative idea can be only half the battle. Once you have information on user's needs, the idea generation phase of design brings you through brainstorming and ideation exercises to develop a slew of new ideas.



#### **PROTOTYPING**

A good idea deserves to be tested, that's where prototyping comes in. Prototyping is a way of learning more about the user by actually having them interact with an early version of a solution. Your prototype will most likely not be perfect the first time.

## APPROACHING CHALLENGES DIFFERENTLY WITH DESIGN THINKING

### **The Design Leaders Program**

The Design Leaders Program is just one example of how the Design Studio helps highly-motivated teams innovate using human-centered design. Over the course of each semester, teams dive into the specific challenges that they are trying to address, receive individualized feedback, and gain a broader use of the Design Studio space to develop their creative solutions.

"The Design Leaders Program not only taught me how to think outside of the box, the program challenged my existing framework to realize there is no box," said Edgar Richmond '17SPS.

















Designer-in-Residence, Adam Royalty working with students in the Design Studio.

## **NEW INNOVATION CLASSES**

44

In order to understand the problems facing their field, students should get out of the building and test their hypotheses by talking to all the stakeholders—customers, regulators, etc. With that information, they can refine their understanding of the problems and rapidly build iterative solutions.

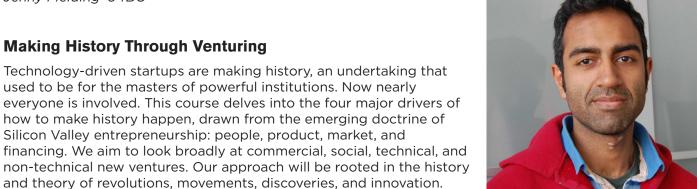
—Steve Blank, Senior Fellow for Entrepreneurship at Columbia University



Jenny Fielding '94BC

#### **Venturing to Change the World, Columbia College**

Changes in technology and society are increasing the power of small teams to impact everything. Developed by Dr. Amol Sarva '89CC and taught by Jenny Fielding '94BC, "Venturing to Change the World" is about the ideas, processes, frameworks, and context of startups and entrepreneurship. The course introduces undergraduates to the intellectual foundations and practical aspects of entrepreneurship and explores the entrepreneurial mindset and the key steps in building a venture.



Dr. Amol Sarva '98CC



Venturing to Change the World introduced us to the universe of startups; from the philosophy of entrepreneurship to preparing investor-ready pitch decks. This interactive class made waking up early on Fridays a highlight of my week.

- Justice Betty '18GS

## INTERDISCIPLINARY PROBLEM SOLVING

## Computational Propaganda – Hacking the Digital Tools that Direct our Attention

Journalism and technology take similar kinds of actions in the world. Both tell stories about who we are and how we live. That new app tells us about our lives; makes us feel modern or hopeful; or concerned or moved to action. Columbia Journalism Professor Mark Hansen works with data in an essentially journalistic practice, crafting stories through algorithm, computation, and visualization. In his new course, Computational Propaganda, he focuses on tools and techniques that have achieved new prominence in the recent national election. He discusses how, over the last few years, we have seen how these tools for directing our attention can be hacked.



Mark Hansen

#### **Battle-Tested Innovation: Hacking for Defense**

Co-developed at Stanford University by Steve Blank, Columbia University Senior Fellow for Entrepreneurship, Hacking for Defense is a battle-tested problem-solving methodology.

Launching in Fall 2017 and taught by Professor Paul Blaer and United States Marine Corps Lieutenant Scott Handler, Hacking for Defense™ allows students to develop a deep understanding of the problems and needs of the DOD and the Intelligence Community. For government agencies, it allows problem sponsors to increase the speed at which their organization solves specific, mission-critical problems.



## 107 ENTREPRENEURSHIP COURSES LISTED IN COLUMBIA COURSE CATALOG



Sarah Holloway '03SIPA.

#### Creating a Social Enterprise, SIPA

Creating a Social Enterprise is taught by Sarah Holloway in the school's Management Specialization—a set of courses and activities that support knowledge and skill building in non-profit, for-profit and social enterprise management. The course focuses primarily on the knowledge and skills required to launch a social enterprise.



## LAUNCHING COLUMBIA



The profiles of the resident ventures in The Lab over the past four years reflect the diversity of business models that distinguishes New York City's startup ecosystem.

#### "The Lab"

Perhaps the best known of all the entrepreneurship initiatives across the Columbia innovation community is the Columbia Startup Lab. Since the

## 143 TEAMS ENROLLED IN THE COLUMBIA STARTUP LAB IN THE FIRST FOUR YEARS



ribbon cutting in July of 2014 "The Lab" has taken on symbolic importance as a beacon for Columbia's entrepreneurship programming. It serves not only as "Corporate Headquarters" for our startups, but also as a convening place for a wide-ranging array of groups from the undergraduate accelerator Alma Works to the bi-monthly Female Founders breakfast.

The Lab is a testimony to Columbia University's longstanding spirit of collaboration and burgeoning entrepreneurial community. It is the result of a unique partnership between Columbia Entrepreneurship and the deans of Columbia College and the Schools of Business, Engineering, Law, Public Health, and International and Public Affairs.

Now in its fourth year, The Lab has been home to a total of 143 Columbia-founded ventures that have raised a combined \$24,600,000. While not directly applicable, ventures in the Lab are thriving in greater numbers than the national failure rates. Of the 143 ventures in the Lab over the past four years, more than 120 are still in the fight. More than 40 are cash flow positive and venture backed.



## \$24.6 MILLION the past four years reflect the diversity of business

The profiles of the resident ventures in The Lab over the past four years reflect the diversity of business models that distinguishes New York City's startup

ecosystem. Each of the four cohorts in the Lab has included social ventures, food, fashion, finance, advertising, and technology startups. Each cohort has been made up of an interdisciplinary mix of educational backgrounds, and each represents a diversity of cultures. Ensuring gender diversity among the founders has always important value of the participating schools sponsoring the Lab. At least 40% of the ventures in each cohort have been female-founded or had a gender-diverse founding team.

In celebration of the The Lab's continued success, the participating schools have all agreed to extend our lease for an additional three years.

## WHERE COLUMBIA FOUNDERS TAKEOFF























## COLUMBIA STARTUP LAB ALL STARS

From top left to right: Co-founders TextIQ, Apoorv Agarwal '16GSAS, Omar Haroun '12JD/MBA | President Bollinger and WordsEye Founder, Bob Coyne '17GSAS | Exubrancy Founder, Liz Wilkes '13BUS | Univate co-founder, Jide Adebayo '14CC | Wandering Bear cofounder, Matt Bachmann '15BUS | Bundle Organics Founder, John Mascari '08CC | Sailo co-founder, Delphine Braas '14BUS | Columbia Entrepreneurship's Nat Kelner.

## **COMMUNITY GATHERING**

Over the last four years, Columbia has attracted many of the world's most celebrated entrepreneurs, innovators and thought leaders. These gatherings are among the best ways to invigorate a culture of Innovation and Entrepreneurship.



















From top left to right: Steve Blank | Jack Dorsey | Peter Thiel | Bill Campbell '62CC, '64TC | Drew Houston and Walt Mossberg '70JRN | David J. Stern, Esq. '66LAW | Arianna Huffington | Ben Horowitz '88CC | Evan Spiegel | Bill Gates and Warren Buffet '51BUS | Eric Schmidt.







StartupColumbia 2017 was our fourth annual conference celebrating innovation and entrepreneurship. This year took on a political tone as panels examined Media Innovation in the Post-Truth Era, Gender Equity in Investment, Climate Change: Fact, Fiction. Finally Grammy winner, philanthropist, and entrepreneur will.i.am closed the conference in conversation with Sree Sreenivasan.











From top left to right: will.i.am | Gordana Vunjak-Novakovic, Columbia University Professor | Jacob Weisberg, Chairman of Slate | Peter Keleman | will.i.am with students of CORE, Chair of Earth and Environmental Sciences at Columbia.



## **EDTECH CHALLENGE**

#### **Democratizing Education**

Through a unique partnership between Columbia Entrepreneurship, Fundação Lemann, and the Columbia School of International and Public Affairs, 36 EdTech innovators, half from Brazil, half from Columbia University, set out to address foundational challenges in K-12 education.

There is no greater social equalizer or pathway to upward mobility than education. But for so many children in our global society, a meaningful education is out of reach.

In October of 2017 the Columbia Entrepreneurship Design Studio and SIPA's Center for Development Economics and Policy selected twenty-four students from across seven Columbia-affiliated schools, to join with 12 Brazilian entrepreneurs, selected by Fundação Lemann, to embark on the EdTech Design Challenge 2017, a 7-month initiative designed to generate tech-based businesses, products, and programs that solve deeply entrenched K-12 education problems.

























## STARTUP LAW FOR LAW STUDENTS AND STUDENT FOUNDERS

#### **Columbia Entrepreneurship Startup Law Studio**

Along with Perkins Coie, the Startup Law Studio Columbia Entrepreneurship provides free professional startup law office hours for student startup teams in the Columbia community. We host regularly scheduled 30 minute sessions held both at the Columbia Startup Lab as well as on Columbia's campus for legitimate student startup teams to address their legal questions.

All sessions are conducted on a pro-bono basis and Columbia Law School Students who seek to gain venture-law experience are invited to observe the office hours.

















The Startup Law Studio was a fantastic experience that we would not normally be exposed to while at Law School.

- James Induc Kim '16LAW







The session was especially helpful because the attorneys had legal expertise and business insight. It was a great opportunity for a startup like us.

## CORE THE COLUMBIA ORGANIZATION FOR RISING ENTREPRENEURS

# CORE

CORE is perhaps Columbia Entrepreneurship's closest and most vibrant partner. It is an honor to work with such brilliant and innovative students. Comprised of undergraduates from Columbia Engineering, Columbia College, General Studies, and Barnard, CORE lays claim to being the largest nondenominational student club on campus.

# īmpulse

## CORE Impulse

**CORE Impulse** is a passionate group of people from CORE dedicated to sharing and engaging in meaningful discussion with the entrepreneurship and innovation community. They write about programs, competitions, events, and guest lecturers on campus. They cover breaking trends in technology and business. And they also write about the founders in New York like Scott Lee '14CC, founder of tutoring platform Gooroo and Brian Pallas '14BUS founder of Opportunity Network.



## **COLUMBIA'S STUDENT ENTREPRENEURSHIP CLUB**

## almawurks

#### **Almaworks**

Conceived and run by CORE, AlmaWorks is Columbia University's student startup accelerator for Columbia student entrepreneurs. Alma Works takes no equity and only aims to help early-stage startups run by student entrepreneurs achieve significant and sustainable growth. The program lasts for an intensive eight weeks. Each week consists of three-hour sessions each Friday. While no session it typical, over the course of the program, teams will participate in workshops, attend office hours with mentors, hear from speakers and alumni, and connect with the extended CORE and Almaworks community. Students are also expected to be working on their startups throughout the program.







## Columbia Business School The Eugene Lang Entrepreneurship Center







### **6** LANG ENTREPRENEURSHIP CENTER

The Eugene Lang Entrepreneurship Center works to instill entrepreneurial thinking in all Columbia Business School students and to create a community of business practitioners with a lifelong commitment to achieving social and economic progress through entrepreneurship.

To help startups navigate their path through entrepreneurship and its many permutations, The Center has created an entrepreneurship curriculum framework, Think, Start, Scale, Invest, which guides students towards classes they can take to help them think, start, scale and get funding.

CBS also creates resources and opportunities to plug into the vibrant ecosystem offered through the student body and New York as a whole: CBSStartups.com, helps all students, alumni, faculty and the public understand the CBS startup network by identifying companies, funds and angel investors that are alumni of Columbia Business School, and the school hosts an annual Alumni Networking Night. The Lang Center also hosts a breakfast series, in partnership with US Trust, to give Columbia Business School alum, students and faculty the opportunity to discuss topics and network in various industries.

CBS further supports startups with funding, whether it be through the Eugene M. Lang Entrepreneurial Initiative Fund, which provides early-stage investing opportunities to qualifying student business initiatives; the Summer Startup Track, which supports student entrepreneurs heading into their last year of business school; or the Lang PhD Fellowship, awarded to PhD students whose research relates to entrepreneurship.



## **15 TAMER CENTER FOR SOCIAL ENTERPRISE**

supporting the creation and communication of new



## **Columbia Business School**AT THE VERY CENTER OF BUSINESS™

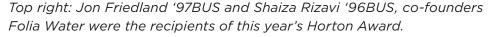
The Tamer Center for Social Enterprise

ideas, and by providing curricular and extracurricular opportunities for Columbia University students in four key areas of focus. These four areas—sustainability and the environment; international development; public and nonprofit management; and social entrepreneurship—reflect its particular strengths and student interests. Overall, Tamer's goal is to be the pre-eminent generator of leadership—both people and ideas—in the world of social enterprise.

There are over a dozen course offerings focused directly on social enterprise, and a wide range of extracurricular opportunities that satisfy the many interests that students wish to pursue. Over 600 students are involved in its clubs, and a rapidly growing number of prospective students identify social enterprise as one of their primary interests.

Traditionally been student-oriented in its efforts, the Tamer Center program remains first and foremost focused on developing the next generation of social enterprise leaders. It now has a full menu of opportunities that prospective students have come to expect from a flagship program in social enterprise: Its summer internship and loan assistance programs support students working with organizations in the United States and abroad; the Tamer Fund for Social Ventures provides seed grants for Columbia-affiliated social venture start-ups; a student-run investment fund, Microlumbia, sends students around the world to evaluate and invest in microfinance institutions; consulting programs send students from Harlem to Haiti to provide guidance and advice to nonprofits and budding social entrepreneurs; and its nonprofit board leadership program connects students to board mentors at nonprofits from Literacy Inc. to Carnegie Hall.









#### **111** COLUMBIA COLLEGE ENTREPRENEURSHIP INITIATIVES

**Columbia College Entrepreneurship Initiatives** are an integral part of the entrepreneurship ecosystem on campus, helping undergraduates innovate and create ventures through its coursework and program support.

A cornerstone of the coursework available for the entrepreneurially minded is Venturing to Change the World, which introduces the intellectual foundations and practical aspects of entrepreneurship. Venturing explores the entrepreneurial mindset, team formation, idea selection, how ideas become products with markets, and the key steps in building a venture.

For those moving beyond the ideation phrase, Columbia College provides support as well. The College helps fund ventures through its sponsorship of the Undergraduate Challenge in Columbia Entrepreneurship's \$250K Columbia Venture Competition. Students from Barnard College, Columbia College, General Studies and Columbia Engineering may enter to win funds for the most innovative and viable business proposal. The top three teams split a \$50,000 prize.

## 12 RES. INC.

A combined program between Columbia Engineering and Columbia College, **RES. INC.** provides a gathering place for the undergraduate entrepreneurial community. As part of the University Living and Learning Center, Res. Inc. students live and work together in a community focused on entrepreneurship and the cultivation of innovative ideas. Students learn to use Lean Launch methodologies and participate in weekly seminars led by domain area experts within the Columbia network.



## Career Education



## SUMMER STARTUP INTERNSHIP PROGRAM AND STARTUP JOB FAIR

It's important for students interested in entrepreneurship to land a summer internship at a startup, but it's impossible to live off of any stipend that comes with it. This internship fund provides up to \$5,000 to offset living expenses. Rising sophomores, juniors, and seniors from Columbia College, Columbia Engineering, or General Studies in good academic and disciplinary standing with at least a 3.0 GPA and Columbia grant-based financial aid can apply for this help during their unpaid or low-paid internship. The Summer Startup Internship Program is sponsored by a generous grant from Columbia College. The Center also provides opportunities for students to gain access to job opportunities at startups.

## COLUMBIA ENGINEERING ENTREPRENEURSHIP

The culture of applied innovation that is **Columbia Engineering Entrepreneurship** supports undergraduates and graduates in the classroom and beyond to creatively solve industry and humanity's biggest questions

Tapping into the vast creative network in New York City, Columbia Engineering collaborates with NYU and CUNY to serve as the home for NYCRIN, the headquarters for the NSF Innovation Corps ("I-Corps™") national program in NYC. I-Corps activities support innovators by providing education in the earliest stages of venture initiation, assisting engineers in learning about the marketplace, and linking them directly to the investment community.

Columbia Engineering also provides its own physical space for Columbia-affiliated faculty, staff, post-docs, and students to develop their ideas into tangible items. This Columbia MakerSpace boasts tools that include a range of 3D printers, a laser cutter, and a number of CNC tools for digital fabrication.

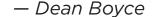
Funding for promising ventures is offered through cFUND Ignition Grants and through the Technology and Global Technology tracks of the Columbia Entrepreneurship's \$250K Columbia Venture Competition. To provide monetary support for those postdoctoral researchers interested in commercializing research originating at Columbia Engineering, there is the Translational Fellows Program (TFP), which supports twenty percent of the salary of selected SEAS postdoctoral researchers and research scientists for one year.

## **Hear from Dean Boyce:**



At Columbia Engineering, we believe that innovation is sparked when people are exposed to real problems and work together across disciplines to address challenges, so we have dedicated resources to developing a supportive ecosystem to promote creativity and entrepreneurship among our students and faculty. Whether it's providing students with ignition grants for seed funding, organizing design expos and venture competitions, or expanding our MakerSpace and workspace for entrepreneurial endeavors, we work closely with Columbia Entrepreneurship, Innovation, and Design, and the Columbia community to foster discovery and to translate innovation into tangible benefits for humanity.

I believe we have one of the most innovative and thriving entrepreneurship programs in higher education. So much so that we have been asked by some of our global partners to help them develop entrepreneurial programming.









## **INNOVATION & ENTREPRENEURSHIP**

# COLUMBIA LAB-TO-MARKET NETWORK



## **16** Columbia Technology Ventures.

Columbia Technology Ventures is the technology transfer office for Columbia University and a central location for many of the technology development initiatives, entrepreneurial activities, external industry collaborations, and commercially-oriented multidisciplinary technology innovations across the university. CTV's core mission is to facilitate the transfer of inventions from academic research labs to the market for the benefit of society on a local, national, and global basis. Each year, CTV manages more than 350 invention disclosures, 100 license deals, and 20 new IP-backed start-ups, involving over 750 inventors across Columbia's campuses.



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## Through CTV, the Columbia Lab-to-Market Network

Entrepreneurial education and access to funding for validation and prototyping is critical to transitioning early-stage technologies out of the lab and bringing them to market at a faster rate. Columbia has extensive experience founding and supporting successful accelerator programs to provide our promising early-stage technologies with mentorship and support resources, direct funding, educational boot camps, networking opportunities with industry representatives and the venture investor community.

The Columbia Lab-to-Market Network currently encompasses four proof-of-concept programs across separate industries: medical technologies, clean technology & energy, digital media, and therapeutics. Many of these programs are explicitly multi-institutional and involve extensive collaboration with our peer universities and their tech transfer offices.

## 28 PowerBridge NY

PowerBridgeNY turns clean tech innovations from the academic research labs at six New York institutions (Columbia, NYU, CUNY, CornellTech, Stony Brook University, and Brookhaven National Lab) into strong, cleantech businesses. Teams are offered up to \$150K to conduct 100 Customer Discovery interviews to identify their initial target market and to develop a prototype or conduct in-field testing to move the technology closer to commercialization. The program is funded by the New York State Energy Research and Development Authority (NYSERDA).



## 29 NYC Media Lab

NYC Media Lab connects digital media and technology companies with New York City's universities to drive innovation, entrepreneurship, talent development and job growth. A public-private partnership launched by the New York City Economic Development Corporation, NYC Media Lab funds prototyping projects that foster collaboration across a range of disciplines core to the future of media, in addition to producing The Combine, an early stage accelerator for emerging media and technology startups.

## Columbia Biomedical Accelerator BioX

The **Columbia Biomedical Accelerator** *BioX* aims to catalyze the advancement of biomedical technologies by providing funding, education, resources and mentorship to interdisciplinary teams of clinicians, engineers, scientists and students working to develop solutions to clinical unmet needs, with the ultimate goal of bringing innovative research out of the lab to benefit society.

## **26** Columbia Translational Theraputics Resources

The Columbia Translational Therapeutics Resource (T-Rx) is an accelerator program designed to leverage Columbia's proficiency in drug discovery and provide access to industry experts with the goal of advancing novel therapeutics from the lab towards the path of commercialization. The TRx Resource provides education (5-session boot camp), mentorship (drug development team) and funding (Pilot Award) to help translational researchers reach a point of value inflection. While indication agnostic, the educational aspect of the program provides a special focus on orphan/rare diseases.



## Accelerating Cancer Therapeutics

In a structure that is similar to that of TRx, the **Accelerating Cancer Therapeutics** will focus on supporting pilot projects that will advance novel therapeutics from the lab towards the path of commercialization and clinical implementation.

## **INNOVATION & ENTREPRENEURSHIP**

## THE BROWN INSTITUTE FOR MEDIA INNOVATION

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#### BROWN INSTITUTE FOR MEDIA INNOVATION

The Brown Institute for Media Innovation, a partnership between Columbia University's Journalism School and Stanford University's School of Engineering, examines the interplay between technology and storytelling. While doing so, The Brown Institute nurtures new forms of journalism through its fellowship, grant, and scholarship programs. It also stages public events and novel educational experiences to advance the practice of journalism and digital storytelling broadly.

With the support of the Institute, this year's grantees and fellows will go on to facilitate innovation around the world, with projects that build data sharing networks to connect journalists around the globe; develop in-camera video feedback tools to help news teams capture high-quality footage efficiently; and explore new ways to critique the data, code and algorithms that shape our world. This year, the institute has partnered with PBS FRONTLINE, ProPublica, and the NYC Media Lab to support its grants.

This year, the Brown Institute and the Center for Spatial Research, at the Graduate School of Architecture, Planning and Preservation, were awarded one of the first Collaboratory grants offered through the Provost's office. Through this collaboration, the Brown Institute is designing training modules in spatial data analysis and visualization, casting both as products in stories and, more critically, as emerging and little-explored tools for reporting.

Looking ahead, the institute is celebrating its fifth year, and has planned workshops and seminars to celebrate and continue to explore innovation in the field of journalism — from "Sneakercon," an examination of offline networking, to a design sprint that will create new forms of data visualization for broadcast. It is also working on the third edition of the Transparency Series, its major training program, which will include such topics as an introduction to VR, and a field trip to learn drone photography.





#### **Hear from Dean Janow:**



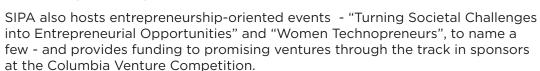
SIPA occupies an increasingly interesting place at the intersection of digital technology, innovation, and public policy," said SIPA Dean Merit E. Janow. "By adding this invaluable support from the NASDAQ Educational Foundation to the extensive resources of Columbia University, we will enhance the School's ability to collaborate with scholars across the University and other experts to produce important new research, thought leadership, and curricular innovation on the study of entrepreneurship and the policy that supports it.

— Dean Janow



## Global Social Entrepreneurship at SIPA; Global Education Technology Program at SIPA's Center for Development Economics & Policy

SIPA has a robust offering of classes that support entrepreneurship. These classes include Creating a Social Enterprise (on the knowledge and skills required to launch a social enterprise), Programming for Entrepreneurs (on the fundamentals of programming, useful for writing web applications), and Generating Financial Support to Grow Social Enterprises (for students interested in securing financial support for public/private partnerships, traditional or innovative philanthropies, well established cultural or educational institutions.)



In 2016, the NASDAQ Educational Foundation awarded SIPA a multi-year grant to support initiatives in entrepreneurship and public policy. The series of initiatives funded by the grant emphasize entrepreneurship and innovation stemming from both information and communications technology (ICT) and digital technology, along with their intersection with public policy globally. Programming began in Fall 2016 and will last for three years through Spring 2019.





## INNOVATION AT GSAPP

## **GSAPP**



#### Innovation at GSAPP

Columbia's Graduate School of Architecture, Planning and Preservation (GSAPP) generates the latest ideas in PropTech through its curriculum, partnerships with industry, and dedication to spaces that help ventures thrive.

Its Real Estate Development Program at GSAPP combines the fundamental skills of professional real estate with a holistic approach to urban development as a creative act. Cross-disciplinary electives draw on the program's access to the extraordinary offerings of GSAPP and Columbia at large, while required coursework immerses students in the three core tenets of urban real estate development: the financial, the physical, and the legal, arming students with the full range of professional and intellectual skills needed to tackle the complex demands of global urban real estate development.

## GSAPP Incubator at the New Museum.

Columbia's GSAPP Incubator at the New Museum is a launch pad for new ideas and projects about architecture, culture, and the city. Drawing on Columbia's GSAPP guest lecturers, discourse, and studio culture, the Incubator hosts and encourages a wide range of experiments initiated by recent Columbia GSAPP graduates. Targeted projects combine action with discussion at the levels of the university, the city, and local ways of life.







## **23** Metaprop NYC Accelerator

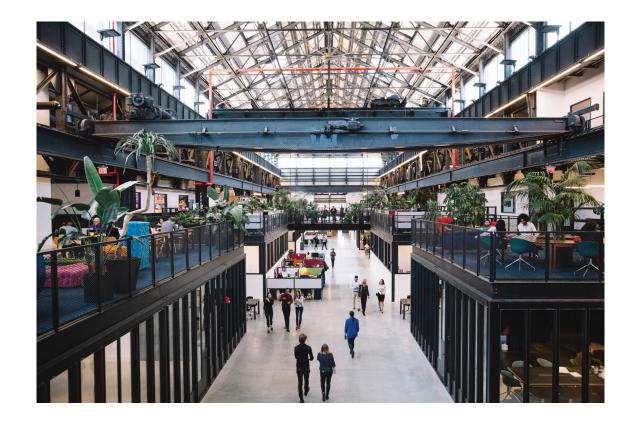
The 22 week program at **Metaprop NYC Accelerator** focuses on driving business growth and accelerated market penetration, and offers accepted teams mentorship, training, and a minimum of \$50K in investment. Success in the pre-accelerator has helped teams enter the full Accelerator.

## **Metaprop Pre-Accelerator at Columbia**

The MetaProp Pre-Accelerator at Columbia University connects first-time, earliest-stage PropTech entrepreneurs (including students, recent graduates and scholars from the Columbia University ecosystem and beyond) to sources of seed capital, real estate and technology mentors, as well as to deep technology education. An intensive 8-week program, the Pre-Accelerator gives participants access to industry mentoring and early product feedback, as well as business and technology training from leaders at MetaProp NYC and Columbia University.

## New Lab, o

New Lab, created to support New York City-based startups in a variety of advanced tech disciplines, provides scalable ventures - including six of Columbia-founded companies - with tools to work, collaborate, prototype, and grow their businesses. New Lab's prototyping labs feature advanced manufacturing tools, including selective laser sintering and fused deposition modeling for 3D printing, as well as standard workshop amenities to support development in robotics, A.I., energy, nanotechnology, and more. There are studios, meeting rooms, and breakout spaces for teams to handle the day-to-day grind of running a business, as well as areas meant to foster collaboration between teams.





## **INNOVATION & ENTREPRENEURSHIP**



## 2 ENTREPRENEURSHIP@ATHENA

**ENTREPRENEURSHIP ATHENA** The Athena Center for Leadership Studies at Barnard College is helping to bridge the gender gap in entrepreneurship by offering much needed support and mentoring for young women interested in launching ventures.

To help demystify the startup world and equip its students with the tools to succeed in it, the Athena Center runs Leadership Labs, which presents on core skills necessary for any successful leader or entrepreneur. To foster an early support network, the Athena Center also provides support for high school innovators through Entrepreneurs-in-Training, an intensive 11-day summer residential boot camp for female high school students. Program participants are exposed to core entrepreneurial concepts, including lean start-up methodology and make site visits to local startups.

Budding entrepreneurs get a chance to gain some real-world experience at running a business through the Athena Digital Design Agency (ADDA). ADDA is a student-run web development academy and agency that is committed to helping small organizations build their brands on the web while empowering women in tech to become entrepreneurs.

## INNOVATION AT THE MAILMAN SCHOOL OF PUBLIC HEALTH

Columbia University
MAILMAN SCHOOL
OF PUBLIC HEALTH

DEPT OF HEALTH POLICY AND MANAGEMENT (HPM)

Mailman School of Public Health Well known for innovation.

HPM encourages public health students and alumni to use new technologies and new business models to attack systematic problems and design new solutions.

Looking forward, HPM aims to create an alumni support network in 2017-18 academic year, where alumni can tap into new and critical resources that will help sustain their work. HPM also hopes to inspire current students to explore the startup sector by offering coursework in the field and financial support to alumni entrepreneurs hiring current student interns. It also looks to leverage its vast network of healthcare leaders to provide important resources to alumni startups.

With a presence in the Columbia Startup Lab, HPM's faculty, alumni, and students is also drawing into a closer collaborative relations with others in the University-wide Columbia Entrepreneurship network.





## **10 COLUMBIA LAW ENTREPRENEURSHIP SOCIETY**



## COLUMBIA LAW SCHOOL

Columbia Law School connects legal experts and entrepreneurs, for example, by holding information sessions for Innovation and Entrepreneurship @ Columbia, a cross-University program that nurtures and leverages ideas and technologies within Columbia University.

The **Columbia Law Entrepreneurship Society** (CLES), a student club in the Law School, embraces a role in the innovation community, bringing its members together to discuss their ambitions, forge important friendships, pursue their business ideas, host the most interesting personalities, and learn from one another. The group hosts dinners and events where members can expand thei network, startup ideas, join with other founders to pursue the ideas, or solve legal and business obstacles that these startups may face; it also connect members with law firms who value their passion and drive and hosts events with business and entrepreneurship organizations.

Law students are also involved with the Columbia Law Studio, where they observe office hours provided to Columbia-founded startups by Perkins Coie.

#### **EDLAB AT TEACHERS COLLEGE**

Teachers College EdTech facilitates the development of innovative, effective, high-quality educational technology products and ensures that those brought to market serve its students, teachers, and institutions most effectively.

The **EdLab at Teachers College** (a research, design, and development unit at the College) has a long history of bringing developers, investors, academic researchers and users together to engage in conceptual development, demonstration projects, and new educational research to explore and document diverse possibilities for the future of education.

With its extensive partnerships with public schools, community colleges, and other organizations, Teachers College experts provide guidance to creative people developing new products in the wide variety of fields, including technology design, cognition, the learning sciences, learning analytics, educational games, software evaluation, teaching with technology, media literacy, digital teaching and learning, policy, and more. From ideation to real-world validation studies, TCEdTech helps make ideas a reality.



# THE COLUMBIA ENTREPRENEURSHIP TEACHING TEAM

#### **Dave Lerner, Director of Columbia Entrepreneurship**

Dave joined Columbia Entrepreneurship after seven years running Columbia's Venture Lab where he spun out 70+ technology startups based on university research. He is also an Adjunct Professor of Entrepreneurship at Columbia Business School where he teaches the *Greenhouse Accelerator Program* and the *Launching Your Startup*. Dave is an entrepreneur (2 exits) and angel investor in 50+ companies. His personal blog explores the worlds of university entrepreneurship and venture investing. Dave serves as a mentor at TechStars and is on the Board of New York Tech Meetup.



## Adam Royalty, Designer-in-Residence at Columbia Entrepreneurship Design Studio

Adam Royalty is the Designer-in-Residence at Columbia Entrepreneurship Design Studio and the founding director of the Columbia Entrepreneurship Design Studio. He comes to Columbia from the Stanford Hasso Plattner Institute of Design the d.school at Stanford University. Since his arrival in the fall of 2014, Adam has been co-teaching "Launching Your Startup" and "Green House" with Professor Dave Lerner at Columbia Business School. In the 2015 Spring semester Adam is co-

teaching a course aimed at helping students conceive, test, plan, pitch, and "Launch Social Ventures" SIPA Professor.



Nat drove the successful launch of the Columbia Startup Lab and oversees the high-level functioning of the SoHo facility. Nat plays a key role on the teaching team of Steve Blank's *Lean LaunchPad* boot camp, *Hacking for Defense*, and the *Greenhouse Accelerator* at Columbia Business School. Nat sits on the board of Columbia Bartending Agency, a student-run enterprise with a fifty year legacy. He conducts entrepreneurship office hours and works on the successful launch of our next big thing. Prior to Columbia, Nat co-founded the Vermont Venture Foundry and was lead programmer at an angel-backed startup.





## Joseph Heritage, Design Lead at Columbia Entrepreneurship Design Studio

Joseph Heritage '17SIPA is the Design Lead at Columbia Entrepreneurship. Joe has over eight years of research, project design, and project management experience. He has worked on agrarian-based social enterprises, value chain development, IDP post-conflict resettlement, entrepreneurship accelerator training, sustainable finance mapping, and market access projects. Prior to Columbia, he lived in Kenya for seven years where he co-founded and managed Freedom Global, a Kenyan social enterprise that employs and educates internally displaced persons working in staple, livestock, and commodity crop value chains.













Inspired by the incredible example of mentorship and generosity provided by our great friend Coach Bill Campbell, Columbia Entrepreneurship, along with our many collaborators across Columbia, has formally launched the #CoachingColumbia movement. It's exactly Bill's type of generosity and the spirit of "paying it forward" that has given momentum to the entrepreneurship culture of Columbia University.

We're grateful to so many of our alumni who sustain Coach Campbell's tradition of giving great mentorship and advice to fledgling Columbia entrepreneurs. These alumni selflessly give their time and wisdom to the next generation across campus during the academic year, downtown at the Columbia Startup Lab, and across the world in the global Columbia alumni community. So to recognize their contributions, we're launching this #CoachingColumbia movement.

From top left to right: Dr. Amol Sarva '98CC, Leslie Gittess '88CC, Deborah Jackson '80BUS, Stuart Ellman, Coach Bill Campbell.

## **COLUMBIA-FOUNDED VENTURES & FUNDS**

















































ANDREESSEN Horowitz Olapic



Prelude













