



VANESSA Z. CHAN

(b) (6)

www.linkedin.com/pub/vanessazchan

Professor | Inventor | Entrepreneur | Venture Board Member | Investor

Industry Experience

- Materials
- Chemicals
- Medical Devices
- Consumer Electronics
- Financial Services

Skills

- B2B and B2C market-led innovation
- Product launches
- Technology commercialization
- Portfolio shaping (M&A, Divestitures, Portfolio Strategy)
- Performance management
- Redesigning education of Engineering talent
- Millennials and Gen Z engagement

Education

Ph.D., MIT in Materials Science and Engineering

B.S.E, University of Pennsylvania in Materials Science and Engineering

Other Professional

- Oversight committee for PA Pediatric Medical Device Consortia
- AAAS Committee on Science, Engineering & Public Policy
- Executive Committee for PENN Health Tech & PENN Venture Lab

Vanessa Chan is an innovator who has worked across a wide range of ecosystems, from academia to Fortune 1000 companies to startups. She has two decades of experience driving shareholder value for organizations making significant R&D investments, by shaping strategy and performance management at all levels.

Chan is a former McKinsey & Company partner with an MIT Ph.D., who has helped her clients grow at the interface of technology and business, across a diverse set of industries. She is an experienced Venture Board Director for Vanguard and United Technology Corporation and a board member at multiple start-ups. Chan was the first woman and the first East Asian elected partner in McKinsey's North American Chemicals practice. She is a nationally respected educator who is the first Practice Professor at PENN's School of Engineering and Applied Sciences, awarded an endowed scholarly chair.

Chan's breadth of experience includes guiding companies and startups on market-led innovation. She currently is one of three external directors on Vanguard's Innovation Venture Board, exploring new ventures and business models for their \$6 Trillion AUM. She was a founding board member for United Technology Corporation's Innovation & Business Development Council, which developed new monetization models including out-licensing of latent IP. Chan sits on the boards for multiple startups including Percepta (ethical AI for unbiased shoplifting detection), Charge-it-Spot (charging kiosk that collects & monetizes retail data), Simply Good Jars (sustainable meals on-the-go) and Girls Auto Clinic (disrupting the auto service industry for women)

While at McKinsey, she co-led the North American innovation practice and advised companies on innovation topics including:

- Reshaping the corporate portfolio by divesting commoditizing business units to free cash to acquire new companies
- Leading due diligences on technology-based acquisition targets
- Designing new performance systems to differentially manage different parts of the portfolio
- Helping multiple clients accelerate time to commercialization of existing R&D projects
- Deciding where to locate Application Engineering Centers in Asia and Europe
- Developing new portfolio metrics to manage billion-dollar R&D portfolios to deliver against business targets and to focus spend on highest value projects, including M&A
- Creating the organizational structures to improve culture and management of R&D
- Using megatrends (water conservation, sustainability, energy savings etc.) as a market lens, to identify R&D opportunities for clients in technology-based industries
- Finding new applications for technology-based IP including gas sensors, nanotechnology, enzymes, specialty materials, specialty glass, coatings, silicones and composite materials

Chan left McKinsey to launch her own consumer product inventions and to learn how to engage millennials and Gen Z through B2C channels. She built a cash-flow positive six-figure business in less than a year, was a finalist on Today Show's next Big Thing, landed a contract on QVC to sell her product and was one of the finalists for Rad Girl's Product of the year.

Chan currently is at the University of Pennsylvania's School of Engineering and Applied Sciences, as the Undergraduate Chair of the Materials Science & Engineering department and the Brassington Professor of Practice in Innovation & Entrepreneurship. She is redesigning how engineers are being educated by formally incorporating real world skills that will better prepare engineering students to have an impact when they graduate. Her work is recognized nationally: [Penn Today](#), [American Chemical Society](#), [Forbes](#), [USA Today](#) and her [PENN commencement speech](#) sharing her philosophy went viral. At PENN she also is establishing new paradigms for academic & corporate collaborations and led the negotiation of the first joint research project between PENN and Comcast.

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VENTURE BOARD & STARTUP BOARD MEMBERSHIPS

Vanguard Venture Board, Malvern, PA (\$6 Trillion Assets Under Management – Financial Services)

External Board Member, (2019-Present): Shaping the future direction for Vanguard by innovating new business models and ventures

United Technology Corporation, Framington, CT (NYSE – RTX, \$60 B Revenue – Industrial Conglomerate)

Founding Member of the Innovation & Business Development Council, (2015-2018): Developed new monetization models, including out-licensing of latent IP

Percepta, (2020-Present), **Simply Good Jars** (2018-Present), **Charge-it-Spot**, (2017-Present), **Girls Auto Clinic** (2016-Present): Helping companies to move from proof of concept to a scalable business model by helping them to develop their strategy and to connect them to large players throughout the value chain

PROFESSIONAL EXPERIENCE

McKinsey & Company, Philadelphia, PA and New York City, NY

- *Senior Advisor* (2015-2016): Continued to support McKinsey's service to core clients as an external advisor while launching a start-up
- *Partner & Co-head of the North America Innovation practice* (2013-2015), *Consultant* (2002-2012)
- *Leader of McKinsey's Philadelphia office* (2006-2015): Co-founder of the PHL office, responsible for the connectivity and culture agenda resulting in PHL still ranked as one of the "happiest" offices in the firm
- Annually identified as one of the top mentors in the Mid-Atlantic office

re.design, Philadelphia, PA

- *Founder & Chief Designer* (2015-2017): Launched a six-figure patented product in less than a year, prototyped, established a supply chain, developed branding, website and social media campaigns

Head First Ventures, Philadelphia, PA

- *Founder* (2015-Present): Consulting and corporate speaking engagements with clients that have included McKinsey, DuPont, Children's Hospital of Philadelphia, Chemtura, CVS Health, Dow Chemical, Comcast, Walmart, ASCEND, Merck, EnPro Industries and many women and venture conference groups

Robin Hood Ventures, Philadelphia, PA

- *Partner* (2015-Present): Angel investment group that invests in early-stage startups that range from Materials Science, Medical Devices, Data Analytics, Energy and Consumer Products

University of Pennsylvania, School of Engineering and Applied Sciences (SEAS), Philadelphia, PA

- *Undergraduate Chair, Materials Science and Engineering*, (2018-Present): Only woman, only Asian on the SEAS Undergraduate Academic Council, that shapes the undergraduate curriculum, and first Practice Professor ever appointed as Undergraduate Chair
- *Inaugural Jonathan & Linda Brassington Professor of Practice*, (2019-Present)
- *Professor of Practice in Innovation & Entrepreneurship*, (2017-2019)

University of Pennsylvania, Philadelphia, PA

- *Executive Committee Member of PENN's Venture Innovation lab* (2020-Present): JV between SEAS and Wharton to catalyze entrepreneurship across PENN
- *Executive Committee of Penn Forum for Women Faculty* (2019-Present)
- *Faculty Representative for Penn Women's Trustee Council* (2018-Present)
- *Executive Committee Member of PENN Health-Tech Center* (2017-2020): JV between SEAS and School of Medicine to catalyze medical device innovation at PENN

OTHER NON-PROFIT BOARD MEMBERSHIPS

- *Oversight Committee for Pennsylvania Pediatric Medical Device Consortia*, (2020-Present)
- *Entrepreneurial Advisory Council Member Delaware Innovation Space*, (2019-Present): Public-Private-Partnership between DuPont and the State of Delaware to drive innovation in the Delaware Valley

- AAAS Committee on Science, Engineering and Public Policy (COSEPP), (Elected 2020-Present)
- AAAS Industrial Science and Technology Electorate Nominating Committee, (Elected 2020-2023)
- Board of Directors for the Kimmel Center for the Performing Arts and Chair of the Diversity & Inclusion Committee, (2019-Present)
- Member of the Board of Trustees, Springside Chestnut Hill Academy, (2015-Present)
- President Emeritus of the Philadelphia Chapter of Ellevate Network, (2014-2019)
- Business Resource Innovation Council, Free Library of Philadelphia, (2014-2017)

EDUCATIONAL BACKGROUND

University of Ulm, Ulm, Germany – NSF and Alexander von Humboldt Post-Doctoral Fellow, (2000-2001)

Massachusetts Institute of Technology, Cambridge, MA, Ph.D., Materials Science & Engineering, 2000

- Awarded NSF graduate research fellowship & IBM graduate fellowships
- Thesis led to first author publication in Science and patent

University of Pennsylvania, Philadelphia, PA, B.S.E., Materials Science & Engineering, 1994

- Graduated in three years, Magna Cum Laude; Dean’s List and University Scholar
- Awarded Rose Award and the Appreciation Award

AWARDS AND RECOGNITIONS

- Selected for Fulbright Specialist Program to work with international universities on innovation, 2020
- First Professor of Practice in PENN’s Engineering School awarded a Scholarly Chair (Jonathan & Linda Brassington Professor of Practice), the highest academic honor in academia, 2019
- Recognized as one of the top 10% course instructors based on teaching ratings in PENN’s Engineering School, 2019
- PENN Engineering Undergraduate Commencement Speaker, 2018
- Rad Award finalist for Product of the Year, 2016
- Today Show Finalist for the Next Big Thing, 2016
- Marvin Bower Award awarded by McKinsey & Company in Recognition of Exemplary Firm Values, 2016
- First woman and first East Asian elected partner in McKinsey & Company’s NA Chemical Practice, 2013
- Joel Portnoy Award awarded by McKinsey & Company for leadership, 2010

PATENTS

- “Earbud headphones that Convert into an accessory”, U.S. Design Patent no. D798267, 2017
- “Earbud Headphones that Convert into an Accessory”, U.S. Utility Patent No. 9,571,914, 2017
- “Periodic Porous and Relief Nanostructured Articles”, U.S. Utility Patent No. 7,799,416, 2010

OTHER

- US Citizen,
- Fluent in English & Cantonese, conversational in German, navigational knowledge of French & Mandarin
- Hobbies include yoga, single-track mountain biking, downhill skiing and making crazy birthday cakes with my daughters that rival the Cake Boss