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Does Venture Capital Have a Public Purpose Responsibility for Tech Startups?

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The Boston Tech Hub Faculty Working Group, hosted by former Secretary of Defense and Harvard Kennedy School Belfer Center Director **Ash Carter** and Harvard SEAS Dean **Frank Doyle**, will convene its second session of the spring semester. This session will explore private sector investment in emerging technologies and the impact investing practices have on the development of these technologies.

Many emerging and disruptive technologies enter the market as start-up companies backed by venture capital (VC) firms. These technologies often deliver better and more affordable products to consumers, and provide improvements to critical public goods such as a free press, public transportation, and housing. However, new technologies also often result in the unintended and/or unanticipated disruption of critical public services, as well as undesirable applications of services by users. Today a new generation of start-ups are building the next round of disruptive technologies and services. These include blockchain, genome editing, quantum computing, space-based technologies, advanced artificial intelligence (AI), Internet of Things (IoT), and neurotechnologies—just to name a few—all of which have enormous market potential, but will also have transformational impacts on society.

A sustainable and peaceful future will depend on whether the next generation of innovators are able to anticipate and mitigate the challenges these technologies will bring, and this session will examine how VCs fit into this landscape.

Context:

- **VC funding for emerging technologies:** Many technologies first become publicly available through the commercial market, launched by start-up companies that are backed by VC firms. These companies can be based globally, but the highest concentration of VC-backed technology start-ups are in the U.S.—California-based companies receive the most VC dollars by a significant margin, followed by Massachusetts-, New York-, and Washington-based start-ups.¹ VCs invest in companies with technologies that span a range of industries, with an especially high concentration in digital technologies, biotechnologies, and energy. VC investment in technology companies has been rapidly expanding. For example, from 2013 to 2017, investment in AI companies increased by a factor of 4.5.²

1 Soper, Taylor. "With \$57.5B invested so far in 2018, VC funding for U.S. startups reaching 'unprecedented levels,'" Geek Wire, July 8, 2018. [Accessible online.](#)

2 Shoham, Yoav, Raymond Perrault, Erik Brynjolfsson, Jack Clark, James Manyika, Juan Carlos Niebles, Terah Lyons, John Etchemendy, Barbara Grosz and Zoe Bauer, "The AI Index 2018 Annual Report", AI Index Steering Committee, Human-Centered AI Initiative, Stanford University, Stanford, CA, December 2018. [Accessible online.](#)

- **Existing responsible investing practices:** Consideration of environmental, social, and governance (ESG) metrics—also known as ‘sustainable investing,’ ‘ESG investing,’ and ‘responsible investing’—is a rapidly growing practice among investors in publicly-held firms. According to research by Morgan Stanley, as of July 2018, \$22.8 trillion (\$1 of every \$4 under professional asset management globally) is invested sustainability. Additionally, 70% of institutional investors (pensions, endowments, etc.) now incorporate ESG as part of their investment process.³ There are different methods of incorporating ESG metrics into investment practices. For example, ‘restriction screening’ is the process of excluding entire product categories (e.g. weapons or fossil fuels) or methods (e.g. animal testing) from an investment portfolio. Another practice, ‘ESG integration,’ involves screening companies through measuring their performance on the most ‘material’ ESG issues for the industry, such as carbon emissions, data privacy, or protection of human rights in global supply chains.
- **Factors that preclude consideration of public purpose from current VC investment decision-making:** There are a number of reasons why ESG and other public purpose considerations have not yet been incorporated into VC investment decision-making. The VC fund business model typically operates on a high-risk, high-reward approach: if a VC invests in 20 companies, they are prepared for 19 to fail as long as one succeeds, covering their investment in all the companies.⁴ In order to achieve this, they look for a company that has potential to disrupt or dominate a market, or rapidly scale to become a ‘unicorn’ with a \$1 billion valuation. There is a lack of ESG data, empirical research, and ESG evaluation tools specific to early stage companies.

Additionally, there are several core beliefs and biases common among VCs and entrepreneurs that have limited the uptake of societal considerations. The traditional gender imbalance in the VC community—in 2016, only eight percent of partners at top VC firms were women—impacts VC decision-making. Extensive research has demonstrated that women bring different views to investment vetting, and more diverse VCs consider a broader range of metrics when making investment decisions.⁵ VCs also generally have a demonstrated preference for younger entrepreneurs over older, more experienced founders. These more-funded, but less-experienced entrepreneurs typically have less knowledge of regulatory environments and/or less prior experience conducting risk analysis and considering ESG metrics. Thus, the younger founders often have less experience considering the impacts of their products or services on their industry or society more broadly.⁶ Many VCs also actively screen for founder personality profiles that demonstrate high levels of optimism and confidence. While these traits often correspond with positive qualities such as persistence through obstacles, empirical research demonstrates that these qualities also correspond with an inability to change course when ideas are not working and an inclination to introduce riskier products.⁷

3 “Sustainable Signals: Asset Owners Embrace Sustainable Investing,” Morgan Stanley, 2017. [Accessible online.](#)

4 Strebulaev, Ilya, Theresia Gouw Ranzetta, and David Hoyt, “Venture Capital Deal Sourcing and Screening,” *Harvard Business Review*, September 6, 2012. [Accessible online.](#)

5 Wendy DuBow and Allison-Scott Pruitt, “The Comprehensive Case for Investing More VC Money in Women-Led Startups,” *Harvard Business Review*, September 18, 2017. [Accessible online.](#)

6 Azoulay, Pierre, Benjamin Jones, J. Daniel Kim, and Javier Miranda, “Age and High-Growth Entrepreneurship,” NBER Working Paper No. 24489, April 2018. [Accessible online.](#)

7 Zhang, Stephen, & Cueto, Javier. (2017). The Study of Bias in Entrepreneurship. *Entrepreneurship Theory and Practice*, Volume 41, Number 3, 419-454. [Accessible online.](#)

- **Impact of current VC investment practices:** The current VC model encourages risk-taking and the ‘move fast and break things’ mentality among technology start-ups. VCs expect technology start-ups to grow at a significant rate with the ultimate goal of selling or going public relatively quickly to produce high returns for the investors. This kind of intensive pressure to rapidly scale—‘blitzscaling’—can encourage entrepreneurs to push products to market even if they are illegal or unproven in their technical or financial feasibility. This has resulted in high profile cases of fraud such as Theranos, which scaled its blood testing products before validating efficacy. (It should be noted that Theranos did not receive VC funding—instead, their funding came from private placements.) In cases of social media platforms, this resulted in rapid growth of users on platforms without safeguards against abuses of ‘bad actors.’ In other cases—including Uber and Lyft—it has resulted in tactics to subsidize company operations to achieve market domination without profitability—with the goal to cash out at an IPO, before passing the risk of unprofitable business models on to public market shareholders.⁸ In October 2018, a four decade record high was reached of IPOs for companies with no profits (83 percent)—exceeding the previous record of 81 percent just before the dot-com crash in 2000.⁹

Discussion Questions:

- Is the current VC financing model sustainable in the long-term? Is it good for society? What types of investment models for early stage technology ventures would provide better financial returns and societal impacts?
- Which factors should matter most for responsible investment in emerging tech VC funds?
- Do VCs and entrepreneurs building products with emerging technologies have a responsibility to anticipate potential abuses by users and take proactive measures to safeguard against harms before selling to the mass market?
- How does the education of MBAs and science and engineering students need to change to ensure the next generation of VCs and company founders are more thoughtful in their approach to managing societal impacts?

⁸ O'Reilly, Tim, "Blitzscaling: The Fundamental Problem with Silicon Valley's Favorite Growth Strategy," Quartz, 2019. [Accessible online.](#)

⁹ Shoop, Chad, "Dot Com Bubble 2.0?" Banyan Hill, 2018. [Accessible online.](#)

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Wilson, Robert M. “Technology and ethics: what should investors consider?” *Principles for Responsible Investment*, December 19, 2018. [Accessible online.](#)