

Venture Capital Gender Bias

Recognizing Leadership Competencies of Female Founders



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Executive Summary

Despite the growing evidence that women-owned companies outperform male-led ones in revenue, job creation, and execution, female-only founding teams continue to receive less than 2% of venture capital. A statistic that has remained stubbornly low for years. [1] Traditional venture capital (VC) evaluation methods often rely on pattern-matching that favors male-dominated leadership traits, overlooking the competencies that many successful female entrepreneurs bring to the table.

To address this inequity, Miller Center for Global Impact, in partnership with Chevron, commissioned research led by Maya Ackerman, PhD, Santa Clara University Associate Professor of Computer Science & Engineering, and Computer Science graduate students Juliana Shihadeh and Jui Banik to explore new approaches for identifying and investing in high-potential women entrepreneurs. The resulting report analyzes why gender bias persists in venture funding and introduces a new framework—**Connective Leadership**, characterized by Empathy, Collaboration, Humility, and Overarching Thinking (ECHO). These traits, common among female unicorn founders, are shown to correlate with long-term business success but are frequently undervalued by investors.

The report proposes a research-backed training program for investors, designed to recognize female-led excellence early and shift evaluation criteria away from gendered assumptions toward demonstrated business competencies.

[1] [*Why Women Entrepreneurs Outperform Men*](#)

Overview

Our Mission

Despite the fact that women-owned businesses represent a growing and significant sector of the economy, female founders continue to receive a disproportionately small share of venture funding. Investors tend to look for founders who have certain characteristics based on previous successful, mostly male, unicorn founders. When the same characteristics are exhibited by women, they are not viewed favorably. We identify an approach to leadership that female unicorn founders demonstrate. These findings can help investors gain insight into how to better evaluate the potential of female CEOs

The Problem: Limited Funding to Female Entrepreneurs

“Solo female founders have raised 2% of all VC capital so far in 2022 — a 6-year low” [1], and in 2023, female only founded companies still “represent a single-digit percentage of the total US VC activity” [3].

Female-only founded companies are reported to have received 2.4% VC capital in 2021 and dropped to 2% through 2022, being the lowest in 6 years [1]. Co-founders with at least one woman have seen a rise in VC funding standing at about “22.8% if you exclude OpenAI’s \$10.0 billion raise, but it still marks a record high” [2]. However, in 2023 female-only founded companies still “represent a single-digit percentage of total US VC activity” [3]. Results show positive outcomes for female entrepreneurs, with “three-quarters of all venture rounds closed by female founders in 2023 [having a] higher valuation than the previous round” [3]. Many believe there aren’t enough female CEOs pitching to VCs. However, findings show they are pitching, but don’t receive funds. Instead, VCs are investing more in male CEOs and oftentimes those who show signs of narcissism. See the section on VC Funding Trends for more information on why there is a lack of VC funding invested in female CEOs.

The Solution: Different Criteria to Evaluate CEOs

To increase funding in female CEOs, we need to help investors identify competencies in women's leadership styles that signal successful outcomes for her company. The competencies in women's leadership styles are often overlooked because they are not the stereotypical competencies investors became used to investing in, yet they can help lead to companies worth billions or more. Our research identifies what indicates the success of a female-led startup. From our analysis of female unicorn founders, we curated a list of competencies that they demonstrate in their leadership style. Furthermore, scientific studies show that these competencies more often exist in women than men.

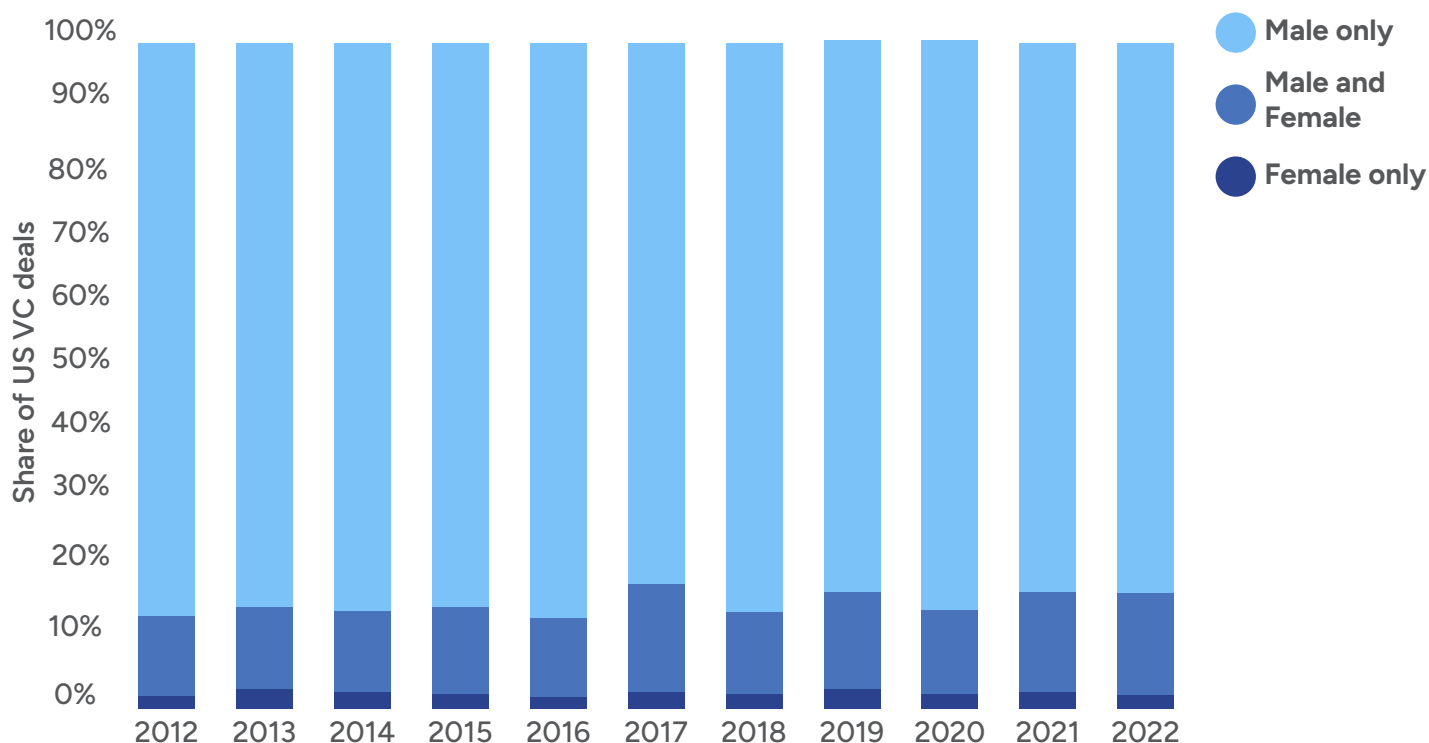
[1] [*Female founders take the good with the bad in a challenging 2022*](#)

[2] [*US All In: Female Founders in the VC Ecosystem*](#)

[3] [*PitchBook Reports Show Female Founded Companies Secured Record High Proportion of Deal Value In 2023*](#)

VC Funding Trends

Male only founders have the most US VC deals

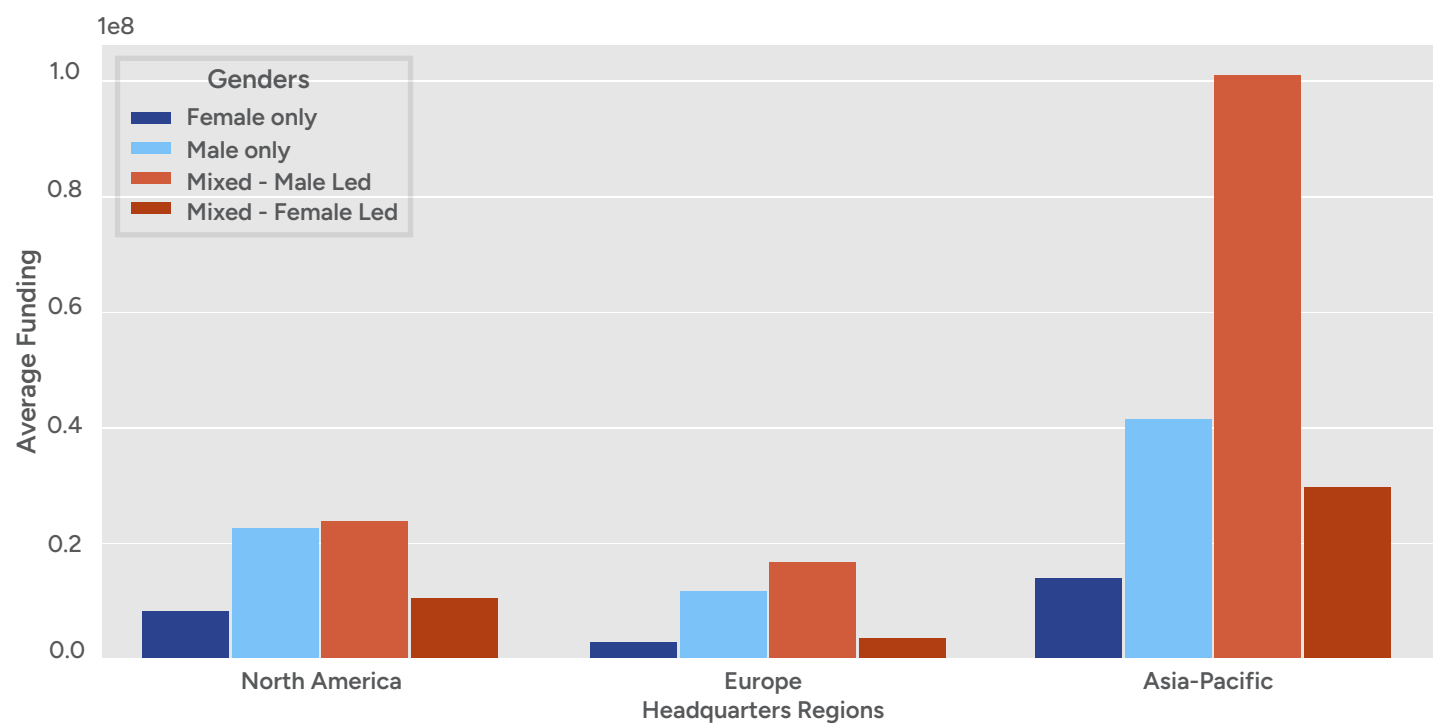


Total Percent of VC Capital Received Based On Genders of Founders

Female only founders received just 2% of VC capital in 2022 [1]. This percent is based on Pitchbook's analysis of gender diversity in VC deals. The graph above shows the total percent of deals received based on the genders of founders [1].

"A CEO's gender is found to be the primary determining factor for funding in a company." [2]

A CEO’s gender is found to be the primary determining factor for funding in a company [1]. The finding was concluded in Cassion et al.’s [2] analysis of Crunchbase’s global average funding given to startups.



Average Funding Received Based on the Founders’ Genders

[1] [Female founders take the good with the bad in a challenging 2022](#)
[2] [Investors Embrace Gender Diversity, Not Female CEOs: The Role of Gender in Startup Fundraising](#)

Myths About Why Female Founders Are Underfunded

Pipeline Problem

It's commonly thought to be a pipeline problem.

"Before the pandemic, in 2019, 28% of new business owners were female, compared to 49% in 2021." [1]

"Women-employer firms grew 16.7% between 2012 and 2019 compared to the 5.2% growth rate for men-owned firms during this period." [2]

The significance of the pipeline problem is greatly overstated, since not only the total, but also the average funding of female-led firms are much lower than male-led ones (see "Average Funding Received Based on the Founders' Genders" chart in the previous section).

Needing More Female VCs

It's commonly thought that if more female VCs are hired, that will fix the problem. However, both female and male investors are biased against women.

"Both men and women who evaluate startups appear to display the same bias in their questioning, inadvertently favoring male entrepreneurs over female ones." [3, 4]

Special Treatment, Lack of Skill

It's commonly thought that if female VCs invest in women founders, those founders are getting special treatment and furthermore end up receiving less investments in the future compared to if a male VC invested in them. Female entrepreneur's skills are overlooked, attributing their success to external factors and luck.

"The women were likely perceived to have received funding, not because it was well-deserved, but because female VCs wanted to help out other women who wouldn't have been able to secure funding elsewhere..." [5]

"When seeking to make sense of events, observers are often tempted to dismiss the contribution of a woman's own capabilities to her success, automatically assuming that some external factor, such as luck or affirmative action, must have played a part." [6]

Pattern matching leads VCs to invest in entrepreneurs that meet stereotypical assumptions of a CEO. This includes investing in men, who are commonly believed to have more intellectual abilities than women [7]. However, women are surpassing men in education [8]. Additionally, VCs tend to invest in entrepreneurs who show narcissistic and psychopathic tendencies [9,10].

"I've yet to see VC partners pass on a deal because the CEO had psychopathic tendencies. Rather, the opposite." - Jason M. Lenkin, CEO and Co-Founder of EchoSign. Acquired by Adobe [11]

[1] [A Survey of Entrepreneurs](#)

[2] [National Women's Business Council 2022](#)

[3] [Female and Male Entrepreneurs Receive Different Questions](#)

[4] [VC Biases in Women and Men](#)

[5] [Backlash if VC Women Invest in Female Entrepreneurs](#)

[6] [Stigma of Incompetence](#)

[7] [Expectations of brilliance underlie gender distributions across academic disciplines](#)

[8] [Education Statistics](#)

[9] [The high-tech sector has become malignant](#)

[10] [The World's Most Successful Entrepreneurs Definitely Have Psychopathic Tendencies](#)

[11] [SaaStr Blog Posts by Jason Lenkin](#)

Our Research: What VCs Should Look For



What To Look For — Connective Leadership ECHO Competencies

Our research on Female Unicorn Founders shows that each female unicorn founder that we analyzed portrayed the following four competencies, which we call ECHO. These competencies are what we define as a Connective Leadership style.

Empathy

Collaboration

Humility

Overarching Thinking

Understanding ECHO

Empathy



What it means:

- Ability to put one self in another position, Mann 1959
- Understanding customer need (design thinking)
- Employee performance and retention

Relevance:

- Facilitates better communication
- Augments listening skills
- Leaders who actively listen to others, acquire more information to make informed decisions

“Because empathy involves genuine concern for others, it follows that an individual with narcissistic tendencies, who is consumed with one’s own standing (particularly relative to others), would experience relatively little empathy — focused on the self more than the value contributing.” [1]

Collaboration

What it means:

- Communal
- Collective intelligence
- Tend and befriend
- Sharing power

Relevance:

- Facilitates collaborative work
- Encourages active participation
- Boosts innovation
- Willingness to recruit individuals to compensate for one’s own shortcomings



“Rosener, using data from a survey by the International Women’s Forum (IWF) characterized women leaders as being more transformational than their male counterparts. The women in the IWF survey reported that they encouraged participation, shared information with subordinates, and energized and enhanced the self-esteem of others. Rosener called this type of leadership “Interactive.” [2]

Humility



What it means:

- Self-knowledge: Knowing their strengths & weaknesses
- Lack of pride and ego
- Acknowledges their mistakes
- Appreciates other's strengths

Relevance:

- Fosters empowerment among others
- Enhances team creativity
- Promotes the adoption of a growth mindset

Women “described leadership in terms of being the person others want to work for...they did not talk about status, prestige, or power...notably collaborative, supportive of their teams, humble and willing to share credit with others.” [3]

Overarching Thinking

What it means:

- Take into account context
- Aware of patterns
- Web-Thinking
- Long term thinking
- Plan ahead to help prevent problems (Fire Preventers)

Relevance:

- Increase capacity to process information, including facial expressions
- Non-linear thinking abilities, enabling the merging of diverse details to derive conclusions
- Proactive avoidance of future issues



“Women can think logically and emotionally at the same time.” [4]

[1] [Self-perceptions of social support and empathy as potential moderators in the relation between adolescent narcissism and aggression](#)

[2] [Leadership](#)

[3] [Bolstering the female CEO pipeline: Equalizing the playing field and igniting women's potential as top-level leaders](#)

[4] [Gender Differences in Human Brain: A Review](#)

“Studies of gender diversity suggest that the impetus for innovation is provided by women’s social traits, which are distinct from those of men... Women are generally more empathetic as well as relationship and collaboration-oriented, whereas men are more assertive and voice-oriented.” [1]

What To Avoid — Hubris Leadership

LACS Disrupters

Contrary to showing Empathy, Collaboration, Humility and Overarching Thinking (ECHO), we identify the opposites of these competencies in order to understand the signs of hubris leadership. We define indicators of hubris leadership we found in our research with the acronym LACS, a hubris leadership style triggering problems within innovation. Here, we present examples of each LACS disrupter to show what the outcomes of it leads to. LACS are competencies lacking a leadership style that can help empower a team and prosper successful innovation, but instead disrupt progress and growth.

Linear Thinking

Arrogance

Competition

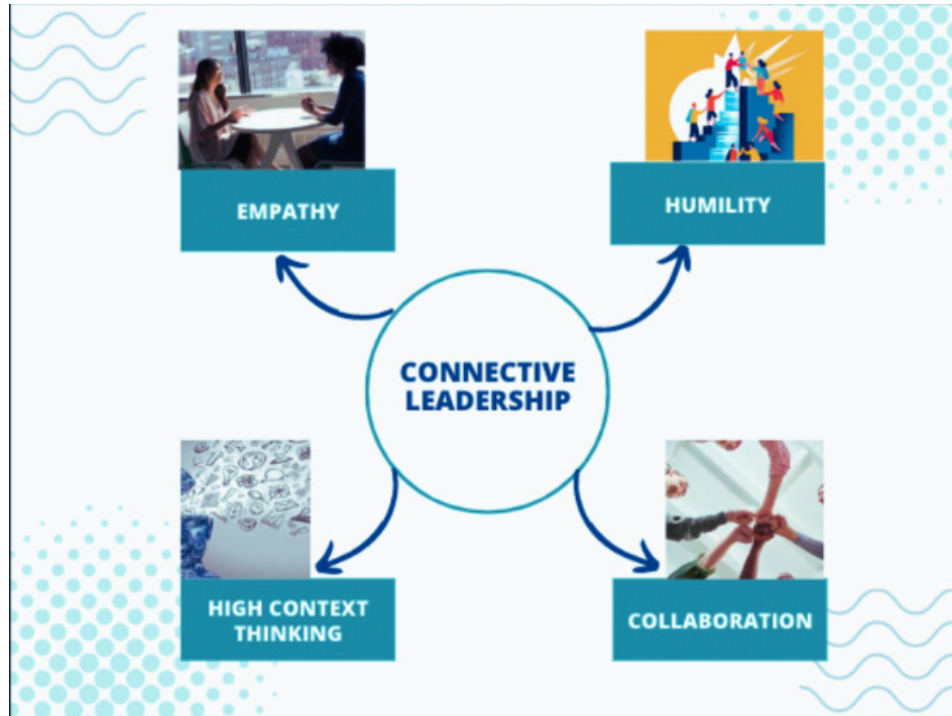
Selfishness

“Hubris, defined as excessive self-confidence or pride, leads CEOs to make overly risky bets or to ignore relevant warning signs.”[2]

[1] [Women in top management teams and their impact on innovation](#)

[2] [The Line between Confidence and Hubris](#)

Connective Leadership



Connective leadership is a style that focuses on building connections to achieve common goals. It emphasizes communication, collaboration, and community-building to create a sense of shared purpose among team members. This leadership style is effective in complex situations and involves prioritizing diverse perspectives and open dialogue over imposing personal ideas or agenda. Connective leaders value empathy, inclusivity, and authenticity, building relationships based on mutual respect and trust rather than positional authority. Overall, connective leadership is a collaborative and inclusive style that emphasizes building relationships to achieve shared goals.

Hubris Leadership



Hubris leadership is a style in which a leader becomes overly confident in their abilities, disregarding advice and making decisions based on their own perceptions. This type of leader sees themselves as infallible and all-knowing, which leads to a lack of humility and an unwillingness to admit mistakes or learn from failures. Hubris leaders may exhibit entitlement and refuse to delegate tasks or share power. This leadership style is detrimental to organizations as it leads to poor decision-making, a lack of accountability, and a toxic work environment. Hubris leaders are also more prone to ethical lapses and scandals, making it a dangerous and unsustainable style of leadership.

How Hubris Leadership Can Go Wrong: Business Scenarios

LINEAR THINKING opposite of overarching thinking



McDonald's:

The Billion Dollar Mistake was a costly leadership decision to launch a new initiative called 'Made For You' that failed due to a lack of consideration for the impact of significant changes to the company's food preparation processes on speed and cost. The leadership failed to recognize that the new food preparation methods required by the initiative would negatively impact the speed of service and increase costs, leading to dissatisfaction among customers. As a result, the company lost significant market share and faced financial losses, highlighting the importance of high context thinking that leads to careful planning and consideration of potential consequences when implementing new initiatives. [1]

Picture Source: <https://www.rawpixel.com/image/3801589/photo-image-blue-vintage-food>

ARROGANCE opposite of humility

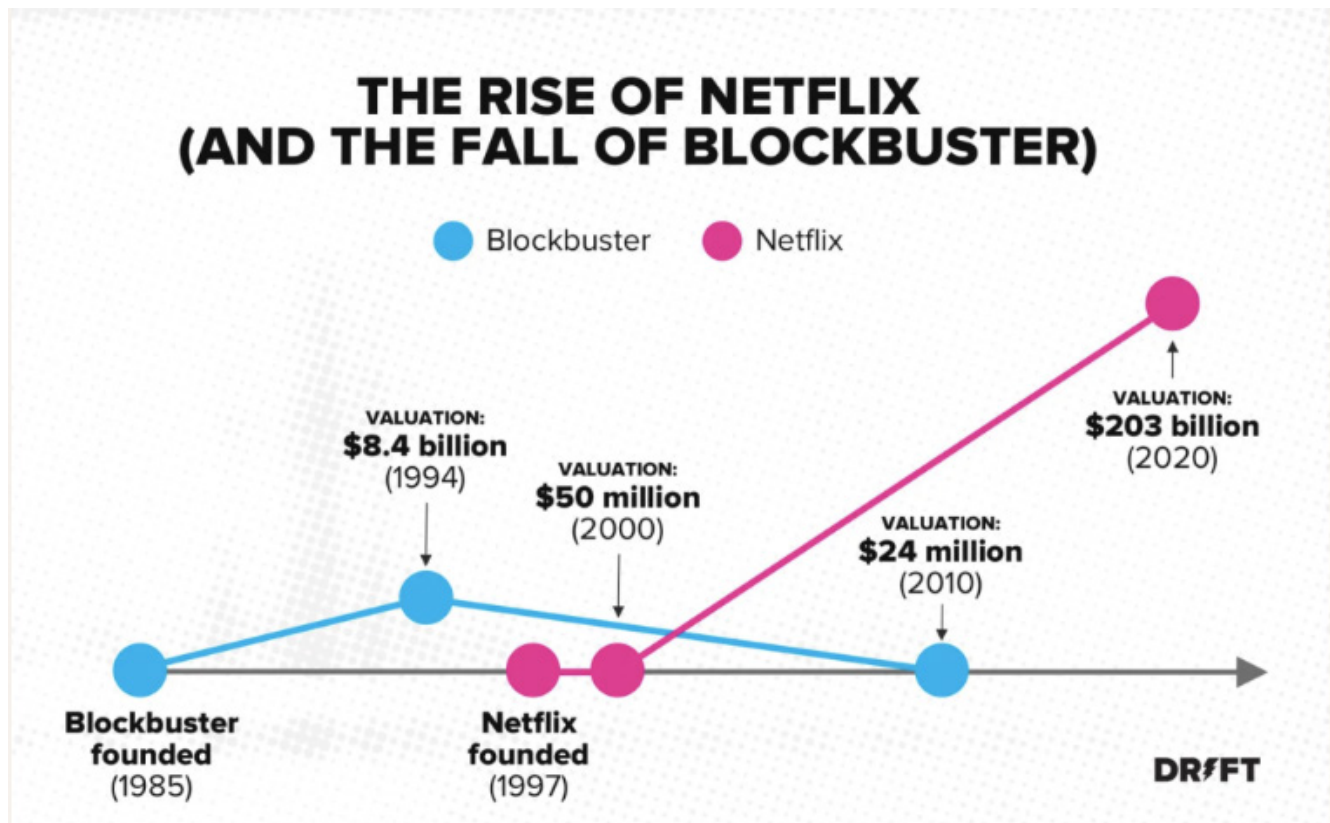


Schwinn Bicycle Company:

The Schwinn Bicycle Company was a dominant player in the bicycle market in the United States for many decades. However, the company failed to keep up with the changing market conditions, which led to its eventual downfall. One of the main reasons for the company's failure was the CEO's lack of humility and dismissiveness of three new ideas. The CEO rejected the ideas proposed by his employees, which could have helped the company stay competitive in the market. As a result, Schwinn was unable to meet the challenges posed by its new competitors who were quick to adapt to the changing market. The CEO's unwillingness to consider new ideas and perspectives led to the company's inability to innovate and ultimately contributed to its demise. This example highlights the importance of humility in leadership and the need for leaders to be open-minded and receptive to new ideas, even if they come from those lower down in the organization. [2]

Picture Source: <https://www.nytimes.com/1992/10/09/business/company-news-schwinn-files-under-chapter-11.html>

COMPETITION opposite of collaboration

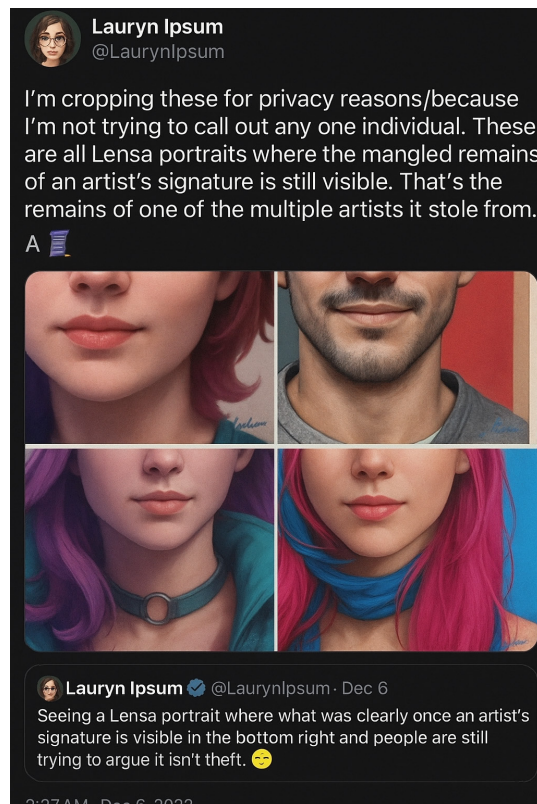


Blockbuster:

Blockbuster, once a leading video rental company, faced a decline in its business and ultimately went bankrupt. One of the main reasons for this failure was the company's leadership failure to recognize the rapid changes taking place in the video rental market due to technological disruption. In 2000, Netflix CEO, Reed Hastings, proposed a partnership with Blockbuster to combine the strengths of both companies, but Blockbuster's leadership rejected the offer. The rejection of the partnership with Netflix proved to be a costly mistake for Blockbuster, as Netflix continued to grow and eventually dominated the video rental market. Blockbuster's leadership missed the opportunity to adapt to changing market conditions and leverage the power of emerging technologies, ultimately leading to their downfall. This serves as a cautionary tale for businesses to stay vigilant and adaptable in the face of disruptive technological changes. [4]

Picture Source: <https://drift.com/blog/netflix-vs-blockbuster/>

SELFISHNESS opposite of empathy



Lensa AI:

Lensa AI is a photo editing app that uses artificial intelligence to transform users' photos into works of art. Many artists have accused the app of using their artwork without permission or credit. Some artists claim that Lensa AI has used their images to promote the app without providing proper attribution, while others have reported that their artwork has been directly incorporated into the app's filters without their knowledge or consent. The lack of credit and acknowledgment has left many artists feeling exploited and disrespected. This has sparked a larger conversation about the ethics of using AI to create art and the importance of respecting intellectual property. Lensa AI's creators failed to look at their creation from the artist's perspective to consider how they might think/feel when they see that some app uses their artwork and profits from it. Additionally, if the creators put themselves in the shoes of the customers, it would help to better understand their experience with the app, such as the impact of a lack of diversity and bias interpretations. [5]

[1] [McDonalds Focus Flips Back To Fast](#)

[2] [What McDonalds Strategy Failure Can Teach](#)

[3] [The Line between Confidence and Hubris](#)

[4] [A look at why blockbuster failed](#)

[5] [Lensa, the AI portrait app, has soared in popularity. But many artists question the ethics of AI art.](#)

Myths About Why Female Founders Are Underfunded

Why invest in female entrepreneurs? In our research, we've found that female unicorn entrepreneurs exhibit the competencies of the collective leadership ECHO framework.

In this section, we present female founders who turned their startups into unicorn companies. For each founder, we show how she demonstrates the ECHO competencies in her leadership style.

Melanie Perkins



Melanie Perkins, CEO of Canva

Valuation: The company reached a peak valuation of \$49 Billion [1]

About: Canva is a free tool that makes digital designing easier. People can create presentations, cards, t-shirts, flyers, stickers, and much more. Canva makes design easier so there's a shorter learning curve for non-experts. It centralizes what someone may need to design something to simplify the process, such as reducing the need to integrate multiple design tools.

[1] *Canva steamrolls on as valuation climbs \$10bn to \$49bn*

Picture source: <https://time.com/collection/time100-next-2023/6308515/melanie-perkins-leaders/>

Competency	Time Segment	Video Link
Empathy	5:22 - 6:50	https://www.youtube.com/watch?v=QIPKxcV5C-w
Collaboration	30:55 - 31:05	https://www.youtube.com/watch?v=8TBSg79Gf0M
Humility	20:13 - 21:10	https://www.youtube.com/watch?v=QIPKxcV5C-w
Overarching Thinking	18:22 - 19:05	https://www.youtube.com/watch?v=YnOLNYt25PM

Whitney Wolfe Herd



Whitney Wolfe Herd, CEO of Bumble

Valuation: The company reached a peak valuation of \$1.21 Billion [1]

About: Bumble is a dating and networking app that requires women to make the first move. Women can connect for finding business partners, friends, or a date. Once a connection is made, a woman has 24-hours to respond to act on the match. In same-gender matches, either can make a move within 24 hours.

[1] Bumble Inc. (BMBL) ANSDAQ: BMBL - Real-Time Price - USD Watchlist Compare
Picture source: <https://motivationalspeakersagency.co.uk/entrepreneurship/whitney-wolfe-herd>

Competency	Time Segment	Video Link
Empathy	1:20:58 - 1:21:25	https://www.youtube.com/watch?v=ca5h47tJsdE
Collaboration	38:18 - 39:08	https://www.youtube.com/watch?v=SS8Eqr82390
Humility	1:25:55 - 1:26:08	https://www.youtube.com/watch?v=ca5h47tJsdE
Overarching Thinking	17:44 - 19:11	https://www.youtube.com/watch?v=ehkyg-MhqnM

Ooshma Garg



Ooshma Garg, CEO of Gobble

Valuation: The company reached a peak valuation of \$1.3 Billion [1]

About: Gobble gives people 15 minute at home cooking kits to prepare meals. Chefs prep ingredients for people in a box that's delivered to their home and prepared in 15 minutes. Options to personalize their meals are provided, such as classic meals, vegetarian options, and lean meals. A person can select what meal they'd like to order on their app and cancel at any time.

[1] [Intelligent Foods Acquires Gobble In A Nine-Figure Deal Naming Ooshma Garg CEO](https://www.seema.com/dorm-to-riches-2/)
Picture source: <https://www.seema.com/dorm-to-riches-2/>

Competency	Time Segment	Video Link
Empathy	23:16 - 23:51	https://www.youtube.com/watch?v=tA5J79on7Vg
Collaboration	21:25 - 22:09	https://www.youtube.com/watch?v=Kmfult96vU4
Humility	25:17 - 15:45	https://www.youtube.com/watch?v=96HCCnhbKYM
Overarching Thinking	11:29 - 11:45	https://www.youtube.com/watch?v=96HCCnhbKYM

Jennifer Hyman



Jennifer Hyman, CEO of Rent the Runway

Valuation: The company reached a peak valuation of \$1.7 Billion [1]

About: Rent The Runway lets a person rent clothing for a short period of time to try different styles and pick styles most appropriate to what they're attending. Rather than needing to purchase clothing, people can rent and return clothes. Customers can select clothes in advance and pick from a range of options, such as for meetings or parties. It's the "first company to IPO with an all-female CEO, COO, and CFO" [2].

[1] [Fashion firm Rent the Runway struts into Wall St with 1.7 billion valuation](https://www.cnbc.com/2025/01/30/rent-the-runway-ceo-what-i-tell-my-kids-if-i-miss-family-dinner-to-work-late.html)

[2] [I was offered an intimate look at Rent the Runway's turbulent year. Here's what happened](https://www.cnbc.com/2025/01/30/rent-the-runway-ceo-what-i-tell-my-kids-if-i-miss-family-dinner-to-work-late.html)

Picture source: <https://www.cnbc.com/2025/01/30/rent-the-runway-ceo-what-i-tell-my-kids-if-i-miss-family-dinner-to-work-late.html>

Competency	Time Segment	Video Link
Empathy	28:00 - 28:54	https://www.youtube.com/watch?v=pEibrIzOgiY
Collaboration	17:31 - 17:55	https://www.youtube.com/watch?v=KtLbw3puTrs
Humility	13:31 - 15:03	https://www.youtube.com/watch?v=T06qHdI1sIQ
Overarching Thinking	18:00 - 19:10	https://www.youtube.com/watch?v=T06qHdI1sIQ

Sara Blakely



Sara Blakely, CEO of Spanx

Valuation: The company reached a peak valuation of \$1.2 Billion [1]

About: Spanx offers undergarments to help provide a smooth look under clothing. This includes undergarments for legs and arms, and now offers additional options, like bras, underwear, leggings, and more. The products can help a person feel better in their clothes, such as to feel more comfortable in an outfit or look more professional than if they weren't wearing Spanx.

[1] Spanx names a new CEO

Picture source: <https://www.forbes.com/profile/sara-blakely/>

Competency	Time Segment	Video Link
Empathy	12:48 - 13:47	https://www.youtube.com/watch?v=TPURpzGPMxQ
Collaboration	11:12 - 12:19	https://www.youtube.com/watch?v=TPURpzGPMxQ
Humility	28:35-29:00	https://www.youtube.com/watch?v=KfiLYjPCxTc
Overarching Thinking	9:48 - 12:48	https://www.youtube.com/watch?v=CVzUc-AogGM

Anne Wojcicki



Anne Wojcicki, CEO of 23andMe

Valuation: The company reached a peak valuation of \$3.5 Billion [1]

About: 23andMe is a company that allows people to learn about their genetics at home. It gives people independence in their health and the choice in how they opt to contribute to medical research. People can learn about their family's ancestors, what their DNA says about diseases they may encounter, and discover relatives. Furthermore, 23andMe contributed to helping understand the effects of COVID.

[1] Genetic testing company 23andMe rises in first trade after Richard Branson SPAC merger

Picture source: <https://www.aspenideas.org/speakers/anne-wojcicki>

Competency	Time Segment	Video Link
Empathy	6:13-6:42	https://www.youtube.com/watch?v=5glEyN6yseU
Collaboration	26:55 - 27:21	https://www.youtube.com/watch?v=lgMyYw6Flzk
Humility	34:04 - 34:12	https://www.youtube.com/watch?v=87GDuh7q6xo
Overarching Thinking	14:03-14:13	https://www.youtube.com/watch?v=59cPbUdlfZ0

Training Program

Based on the ECHO framework proposed here, we've developed a training program to help investors recognize high potential female founding CEOs. The aim is to enable investors to identify talent before the women reach exceptional success, as financial backing is essential in the early stages of building a company. The program consists of the following:

- An initial assessment of the investor's current investment patterns
- Presentation of the ECHO framework
- Video material demonstrating competencies of highly successful female founder CEOs
- Investors come up with concrete steps for adapting their specific investment strategy to incorporate the ECHO framework, as such increase the likelihood of recognizing high potential female founders/CEOs

Preliminary testing was conducted, receiving feedback from two active investors. This program has the potential to transform deeply entrenched investment patterns.

Conclusions

A CEO's gender turns out to be the primary determining factor of why VCs invest in a company. Too often, people assume there is either a pipeline problem, not enough female VCs, or that female VCs who do invest in women do so out of charity. In turn, women-only founded companies have been receiving about 2% of VC deals, and a company led by a female CEO is expected to receive much less funding than one led by a male CEO.

We propose to increase funding opportunities for highly capable women using the Connective Leadership style. This framework can be used by investors to identify highly talented female leaders who may be building the next unicorn company.

Acknowledgements

We are deeply grateful to Maya Ackerman, Juliana Shihadeh, and Jui Banik for their insightful research on VC gender bias, which has deepened our understanding of the structural challenges faced by diverse founder teams and informed our efforts to foster more equitable pathways to capital for entrepreneurs. We thank Bonita Banducci, Yoko Okano, and Minda Brusse for several valuable discussions. We also thank Kacey Kim for her professional services in preparing this report. Lastly, we thank Chevron, as well as our other partners and donors, who enable Miller Center to continue supporting social entrepreneurship around the world.

About Miller Center for Global Impact

For almost 30 years, [Miller Center for Global Impact](#) has been a leader in the global social enterprise movement. With an emphasis on climate resilience and women's economic power, we accelerate social entrepreneurship to end poverty and protect the planet, guided by the UN Sustainable Development Goals. Located at Santa Clara University, we fuse the entrepreneurial spirit of Silicon Valley with the university's heritage of social justice, community engagement, and global impact. Miller Center has served 1,500 social entrepreneurs based in over 100 countries that are impacting hundreds of millions of lives.



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