Dear participant:

Thank you for registering for the Conference to Advance Women in Technology, which will take place on Thursday, April 30th at UCLA. To help you get the most from the conference, we’ve created this introductory packet to let you know what you can expect, and to provide you with some background information to facilitate productive discussions that lead to actionable results.

A large body of research and countless personal experiences underscore that women in tech face a variety of gender-related barriers to success. Certainly less is known about the actionable strategies that can remove these barriers by addressing their root causes.

The objective of this conference is to explore strategies to advance women in tech. Such strategies fall into three main categories: personal, private and public. Rather than focusing on personal strategies that place the onus of cultural change on individuals, this conference will focus on private and public strategies that foster systemic change. Specifically we will address private strategies—company policies and procedures at the entrepreneurial and corporate levels—as well as public strategies—such as non-profit initiatives, public-private partnerships and public policies.

This introductory packet will focus on and reference private strategies that have been documented. The conference will also discuss public strategies that have thus far been less well documented, but are critical pieces of a holistic strategy for change.

Thank you for being part of this important conversation.

Sincerely,

UCLA’s Luskin Center for Innovation and Office of Information Technology
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WHAT ARE WE MISSING?
RETHINKING STRATEGIES TO ADVANCE
WOMEN IN TECHNOLOGY

APRIL 30, 2015 @ UCLA CARNESALE COMMONS
YOUR ROLE

You will be part of a diverse group of attendees at the conference who will include representatives from medium and large corporations, startups, startup support institutions (incubators, accelerators, etc.), non-profits, academia, government, and the media. By inviting informed participants who represent a diverse range of perspectives, we hope to engage everyone in lively conversation throughout the day.

To better align the conversation with your individual interests we have established two concurrent tracks of breakout sessions. You have chosen one of following two tracks to attend for both the morning panels and afternoon discussion:

**Track 1.** Fostering Women as Tech Entrepreneurs – examining solutions for the issues women face at the startup and entrepreneurial level.

**Track 2.** Promoting an Equitable Corporate Workforce – examining solutions for the issues women face in tech jobs at medium and large companies and organizations.

Following the breakout sessions and lunch, you will be asked to participate in a small group discussion during which you and your group will prioritize a strategy or two to help advance after the conference. This will involve reflecting both on lessons learned from speakers earlier in the day as well as your own role in implementing solutions.

UCLA will summarize these discussions in a report to be released following the event.
CONFERENCE AGENDA

8:00 - 8:30 A.M.  REGISTRATION & BREAKFAST
(SPONSORED BY CISCO)

8:30 - 8:40 A.M.  OPENING REMARKS
J.R. DeShazo - Director, UCLA Luskin Center for Innovation
Davida Johnson - Director, Community Partners Program, UCLA OIT

8:40 - 8:50 A.M.  WELCOME FROM LOS ANGELES MAYOR’S OFFICE
Nancy Perlman - Goldhirsh Fellow, Technology & Innovation, Office of LA Mayor Eric Garcetti

8:50 - 9:05 A.M.  OPENING KEYNOTE
Sue Gardner - Special Advisor and Former Executive Director, Wikimedia Foundation

9:05 - 9:45 A.M.  KEYNOTE PLENARY
John Villasenor - Researcher, Stanford University, The Brookings Institution, and UCLA (Moderator)
Valerie Aurora - Co-founder, Ada Initiative
Jane Margolis - Senior Researcher and Author, UCLA Graduate School of Education and Information Studies
Monique Morrow - Chief Technology Officer, Cisco Systems, Inc.

9:45 - 10:00 A.M. BREAK

10:00 - 11:15 P.M. CONCURRENT BREAK-OUT SESSIONS

Track 1.1: Accelerators, Incubators, and Other Startup Resources
Kevin Lew - Director, Bixel Exchange, Los Angeles Area Chamber of Commerce (Moderator)
Tina Denuit-Wojcik - Chief Technology Officer, Enplug, Inc.
Espree Devora - Vice President of Communications, WeAreLATech
Jess Erickson - Director of Marketing, 500 Startups
Linda Moore - President and Chief Executive Officer, TechNet, Inc.

Track 2.1: Corporate and Public Policies to Attract Women to Tech Jobs
Katherine Oyama - Senior Policy Counsel, Google, Inc. (Moderator)
Madeline Heilman - Professor and Author, New York University (NYU)
Brooke Hunter - Chief Operating Officer, Engine, Inc.
Victoria O’Seni - Chief of Staff, Information Technology, Creative Artists Agency
Susan Palm - Vice President, MetricStream, Inc.

11:15 A.M. - 12:30 P.M.  CONCURRENT BREAK-OUT SESSIONS

Track 1.2: Startup Funding Pipeline
Leigh Honeywell - Platform Security Engineer, Heroku (*Moderator*)
Melinda Moore - Chief Marketing Officer, Crowdfunder, Inc.
Louis Stewart - Deputy Director of Innovation & Entrepreneurship,
Governor’s Office of Business & Economic Development
Sophia Viklund - Founder & Head of Strategic Relations, backCODE, Inc.
Erin Flynn - Principal, Ackrell Capital, LLC

Track 2.2: Policies for Building Retention
Lisa Conn - National Organizing Director, FWD.us (*Moderator*)
Michelle Angier - Director of Women’s Initiative Network, eBay, Inc.
Tiffany Crawford - Founder and Chief Executive Officer, CREATE Leadership Institute, Inc.
Denise Gammal - Senior Director, Diversity and Inclusion, Exponential Talent, LLC
Shelley Zalis - Chief Executive Officer, Ipsos OTX

12:30 - 1:30 P.M.  LUNCH (SPONSORED BY GOOGLE) AND KEYNOTE
Adaora Udoji - Chief Executive Officer and Founder, outLoud, Inc.

1:45 - 2:55 P.M.  BREAK-OUT SESSIONS DISCUSSIONS (*See pages 5-6*)

3:00 - 3:30 P.M.  PRESENTATION OF SOLUTIONS

3:30 - 3:50 P.M.  KEYNOTE ADDRESS
Krisztina ‘Z’ Holly - Entrepreneur-In-Residence, Office of LA Mayor Eric Garcetti

3:50 - 4:00 P.M.  CLOSING REMARKS
Rebecca Sadwick - Project Manager, Digital Tech Initiative, UCLA Luskin Center for Innovation

4:00 - 5:00 P.M.  WINE RECEPTION WITH HORS D’OEUVRES
INTRODUCTION:
HISTORY & KEY STATISTICS

Current conditions for women in tech are the result of longstanding, socialized and institutionalized behaviors and policies. Understanding the context of where we currently stand is important to understanding how to fix these problems. For that reason, we’ve included a brief historical timeline of events and statistics relevant to women in technology fields in the U.S.

This brief examination of historical trends highlights the fact that conditions have not improved by many measures. In some cases, the representation of women in tech has worsened, showcasing the need to reevaluate strategies to mitigate existing inequities. These issues will be covered in further detail in the following sections organized by the panel topics.

1985: • 37% of Bachelor’s Degrees in Computer and Information Science were awarded to women.¹

1999: • The percentage of female partners at venture capital firms hovered around 10%.²

2001: • An extensive study of high tech entrepreneurs revealed that only 5% of venture capital investments went to female-run high-tech firms.³

2003: • Nearly half of all women who held a computer science B.S. were not employed in a science, engineering, or technical job two years after graduation. Just over 30% of women with a computer science B.S. were still employed in a science, engineering, or technology job two years after graduation.⁴

³ Tinkler et al “Gender and Venture Capital Decision Making: The Effects of Technical Background and Social Capital on Entrepreneurial Evaluations.” Clayman Institute for Gender Research at Stanford University, National Center for Women and Information Technology.
2004-2007: Research on high tech entrepreneurs finds that women founded only 3% of technology firms and 1% of high-tech firms.\(^5\)

2009: Women comprised only 25% of the IT workforce. (Women's representation is also affected by race and ethnicity. 72% of the women in the IT workforce in 2009 were white, 16% were Asian, and the remaining 12% were “other”.) \(^6\)

2013: 18% of Bachelor's Degrees in Computer and Information Science were awarded to women (down from 35% in 1985).\(^7\)

- A study conducted at Harvard Business School & the Wharton School found that companies pitched by men were about 40% more likely to receive funding than those led by women. In a follow-up experiment, the study found evaluators particularly favor pitches from attractive men, and that attractive women were less likely to receive funding than unattractive men and unattractive women. \(^8\)

- Different studies have evaluated that female-led ventures have received between 2.7%\(^9\) and 7% (2013)\(^10\) of all venture funds allocated (i.e. not tech necessarily.)

- Angel funding vs. Venture Capital (VC)\(^11\)
  - VC: $29.4 billion was invested in 3,995 venture deals
    - A 7% increase in dollars invested since 2012

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\(^5\) Tinkler et al. “Gender and Venture Capital Decision Making: The Effects of Technical Background and Social Capital on Entrepreneurial Evaluations.” Clayman Institute for Gender Research at Stanford University, National Center for Women and Information Technology


\(^8\) Ashcraft, Blithe. “Women in IT: The Facts” National Center for Women and Information Technology.


- A 4% increase in number of deals since 2012
- Angel investing: $24.8 billion in 70,730 ventures
  - An 8.3% increase in terms of dollars since 2012
  - A 5.5% increase in number of deals since 2012

2014:  
- The percentage of female partners at VC firms actually declined, from 10% in 1999, to 6% in 2014.\(^\text{12}\)  
- Fewer than 5% of all ventures receiving equity capital have even a single woman on their executive teams.\(^\text{13}\)  
- Women represent 50% of middle management and professional positions, but the percentages of women at the top of organizations represent not even a third of that number.\(^\text{14}\)  
- The percentage of female employees in technical jobs at Google, Yahoo, LinkedIn and Facebook are about 15-17\%.\(^\text{15}\)

2015:  
- About half of America’s publicly traded technology companies have all-male boards.\(^\text{16}\)

2018:  
- If current trends continue, America’s information technology industry will only be able to fill half of its available jobs.\(^\text{17}\)

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INTRODUCTION:
STRATEGY TYPES & ELEMENTS

Types of Strategies

This Conference to Advance Women in Technology will be strategy-oriented. Strategies to reduce gender inequality in the tech sector fall into three main categories:

**Personal:** Strategies implemented by individuals.

**Private:** Policies or processes implemented by private organizations to improve their own culture and outcomes in terms of gender equality.

Note: This introductory packet will focus on private strategies that have been documented, while the conference will also discuss public strategies that have thus far been less well documented but also are critical pieces of a holistic strategy for change.

**Public:** Social movement/large-scale public dialogue aided by social media, non-profit initiatives, government initiatives, public-private partnerships, or public policies to promote fairer treatment of women within the tech sector.

Note: Litigation and legal oversight can also play a role in changing social and business norms.

This conference will focus on the public and private categories of strategies that have potential to induce systemic change. Panelists will examine data-driven, scalable strategies that may be applied to address difficulties women in tech face at two levels: entrepreneurial (startups and small companies) and corporate (mid-to large-size companies).

To achieve systemic change, research has shown that successful efforts at any level will include two programmatic elements: 18

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18 "Recruiting, Retaining, and Advancing a Diverse Technical Workforce: Data Collection and Strategic Planning Guidelines" National Center for Women and Information Technology. Jan. 21, 2015.
(1) **Data and Evaluation**: Collect data to determine baseline, measure progress over time, and compare against industry, national, and international benchmarks.

(2) **Goal Setting and Accountability**: Commitment is required at the leadership level. This foundational commitment is key to developing goals and a strategic plan for meeting targets, tracking success, and pivoting toward alternate strategies as needed.

(1) **Data & Evaluation: Common Biases to Address**

Gender disparity is expressed in different ways across individual companies and organizations. For this reason, organizations should tailor inequality-mitigating measures to the conditions in their own firms.

Despite the need for individualization, however, researchers have identified a set of common, well-documented biases that all firms should keep in mind when considering ways to improve gender-related disparities in the workplace.

Common biases that all companies need to watch out for include:\textsuperscript{19}

- **“Prove-it-again.”** Women often must provide substantially more evidence of competence than men to be perceived and treated equally.

- **“Tightrope.”** Women are often forced to juggle between fulfilling traditional feminine gender stereotypes in order to be liked as people, and masculine stereotypes to be respected as colleagues. This condition can be characterized as choosing to be “liked but disrespected” or “disliked but respected.” Either choice has negative consequences for women’s careers.

- **“The Maternal Wall.”** Women may be are penalized in a variety of ways for deciding to have children, and for the responsibilities of raising them. Women are viewed as having to decide between family and career, while men are not. The unconscious bias associated with this contends that a woman cannot completely fulfill her obligations as

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both a parent and an employee, while a man can fulfill his. 

- “Tug-of-War.” Women who have faced discrimination in their careers often end up viewing workplace interactions with other women as a zero sum game. They perceive themselves to be competing with other women for token positions, or see relationships with other women as a hindrance to career advancement and then often isolate themselves from other women. Studies show that this is damaging to them and other women, as networking and mentoring are often important for successful careers.

Regardless of size, all companies should evaluate and record their own conditions if they want to address these problems effectively. These biases serve as a good launching point to next discuss the types of issues to consider.

(2) Goal Setting & Accountability: Indicators & Best Practices

As mentioned above, individual companies should tailor efforts to promote diversity according to the conditions within their own firms. However, just as there is a set of common biases, there is also a general set of important indicators that companies can use to get started.

The indicators listed below are not exhaustive, but have been shown to be some of the most critical measures of the extent to which women are integrated into a company. While companies may have their own practices and metrics that are particularly relevant, indicators that all companies should examine include:

- **Hiring Practices:** Job description wording, composition of the candidate pool, and the interview process itself are often subject to unrecognized biases that penalize or discourage female applicants.

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22 Williams, J. “Reduce your gender bias, the lean start-up way” BRW. Oct. 3, 2014.
• **Composition of Technical Position Employees:** Companies should track the demographics of their employees (especially within technical roles) to assess problems and benchmark progress.27

• **Work Assignment Practices:** ‘Housekeeping’ tasks in the workplace that distract from primary job responsibilities often fall to women without providing additional compensation or recognition. The way assignments are allocated can be unfairly burdensome to women in tech, and such practices should be codified and monitored.28

• **Evaluation Practices:** Evaluation systems that rely on aggressive self-promotion have been shown to negatively impact the professional trajectories of women in tech, who are socially expected to lean towards collaboration and professional modesty. Assessing evaluation practices to ensure they measure only specific job expectations can significantly affect the healthy integration of women into a company.29

• **Compensation Practices & Salaries:** Current practices in compensation have produced a significant wage gap between female and male employees in the tech sector. Compensation practices are a key indicator to be examined by companies seeking to mitigate gender inequality in tech.30

• **Reporting Practices:** Some women who report discrimination or sexual harassment face retaliation afterwards by their employers. The way reporting practices are implemented and executed can impact how comfortable women feel reporting harassment.

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28 Williams, J. “Reduce your gender bias, the lean start-up way” BRW. Oct. 3, 2014.

29 Ibid.

30 Ibid.
Track 1: Fostering Women Entrepreneurs and Leaders in Startups, Small Firms and Organizations

Track 1 of the Conference to Advance Women in Technology will explore solutions to harmful conditions faced by women in tech at the entrepreneurial, startup, and small company level.

Gender inequality within the startup community is arguably more severe than it is at corporate levels. Startups are not subject to government diversity requirements or public scrutiny as are corporations. Startups are also not subject to parental leave policies (a policy that disproportionately affects women) and overwhelmingly do not have such policies in place. In addition, startups often do not have established harassment reporting mechanisms. These factors, among others, contribute to the exclusion of women at startups.

Breakout sessions in this track will explore effective strategies for fostering and supporting female participation and leadership in startups, small businesses, and small organizations. Panelists will discuss public and private initiatives to encourage women to pursue entrepreneurial goals, as well as ways to support these women in those pursuits.

This track is ideal for: Entrepreneurs, affiliates of startup support institutions, policymakers, others interested in seeing improvement in gender equality at the startup level.

Overarching problems that can exist at this level include:

- Unwelcoming and Exclusionary Cultures
- Work-Family Conflicts
- Lack of Access to Social Networks
- Disparities in Funding Access and Awards
- Lack of Quality Mentors, Role Models and Sponsors
- Subtle or Overt Sexual Harassment

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Session 1.1
Accelerators, Incubators, and other Startup Resources

Moderator: Kevin Lew, Director, Bixel Exchange, Los Angeles Area Chamber of Commerce
Panelists: Tina Denuit-Wojcik, CTO, Enplug, Inc.
Espree Devora, VP of Communications, WeAreLATech
Jess Erickson, Director of Marketing, 500 Startups
Linda Moore, President and CEO, TechNet, Inc.

In recent years, there has been a proliferation of organizations designed to assist startup growth. Beyond traditional venture capital firms, incubators, accelerators, co-working spaces government programs and other initiatives and institutions offer startups a variety of resources. These include but not limited to funding, access to external investors, access to influential social networks, mentorship opportunities, and workspace.

The following are three key connections/categories for which opportunities exist to support women as tech entrepreneurs and employees in startups and small firms and organizations:

- Connections between entrepreneurs (networking and mentorship strategies);
- Connections between entrepreneurs and key support organizations/initiatives (incubators, accelerators, funding programs, etc.)
- Connections between support organizations/initiatives (collaborative events, sharing of best practices, sharing of board members, leveraging financial resources, etc.)

The gender disparity that exists in the tech sector can extend within these support organizations, but many of them have implemented specialized programs to support the success and presence of women in tech.

For example: Y Combinator began publishing “Female Founder Stories,” a
collection of accounts from their own alumnae on their experiences, helping build their reputation as an organization that is supportive of female entrepreneurs. Chicago accelerator 1871 launched WiSTEM, a program focused on female startup founders. Techstars makes it a point to hire women, publicly articulate its support for female founders, and recognize their participation.

Noted accelerator program 500 Startups began its 500 Women fund, designed specifically to fund female-founded companies (This conference will have a panelist from 500 Startups who can speak in more depth about their initiatives).

In addition to the programmatic elements outlined earlier, strategies to improve gender-based disparities at the startup level through support institutions are introduced on the next page.

**Introduction to Session 1.1: Strategies for Improvement**

**Changing Perceptions:** Publicizing the presence of female startup founders within accelerators is crucial to overcoming common perceptions that can prevent women from seeking roles in tech entrepreneurship. Creating a positive public narrative indicates to potential female applicants that they are welcome and will be treated with dignity and respect.

**Effective Strategies Include:** Publically highlighting the experiences of female founder program alumnae; Offering grants specifically for women to attend training programs and startup support institutions; Partnering with other organizations that have gender-equity missions to indicate to female entrepreneurs that they are welcome and supported.

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32 “What We Learned From 40 Female YC Founders.” *Y Combinator Posthaven*, November 24, 2014.


Mentorship: Anecdotal experiences as well as quantitative research have shown that mentorship is one of the factors most crucial for entrepreneurial success. This is especially so for women who face additional gendered obstacles. Mentorship (from both men and women) helps women succeed in short-term ventures and also assists with long-term retention rates. Mentorship helps women feel integrated and offers them evidence that a successful career is possible. Support institutions can assist in providing this help.

Effective Strategies Include: Intentionally seeking female mentors who can work with startup constituents; Offering targeted and formal mentorship programs for women going through these programs; Implementing “office hours” that allow women to ask for help when they need it and on their own terms.

Blind Submissions: Because of unconscious biases, women and minorities are more likely to be funded or selected for support programs when their gender or identity is unknown. Higher ratios of female winners are present in gender-blind competitions. When startup support institutions are calling for applications or hosting competitions, they should keep these conditions in mind.

Effective Strategies Include: Conceal the gender and background of participants at entrepreneurial events and competitions.

Capital Acquisition: Accelerator and incubator programs often offer entrepreneurs some initial funding internally and almost always assist their members in acquiring outside funding. Since the disparity in capital invested in female and male founders is one of the starkest discrepancies, this is one area in which support institutions can support women. (Panel 1.2 will explore funding issues more explicitly.)

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38 Ouimet M "Why Female Founders Need Male Mentors." Inc.com, October 26, 2012.


Note: Brad Feld introduced and popularized this concept, but there are myriad examples of the use of Office Hours.


**Effective Strategies Include:** Personal introductions to investors and promotion at the ubiquitous “demo day” at which entrepreneurs present their product to a host of eager potential investors; Inclusion at informal, semi-formal and formal events.

**Specialized Programs:** In recent years, there has been an increase in the number of startup support institutions that have implemented specialized programs that focus on women (e.g. 500 Startups’ 500 Women Fund, YC’s Female Founders Stories, 1871’s WiSTEM, etc, General Assembly’s partnerships with Girls in Tech, etc.). These programs have not been in place long enough to provide sufficient quantitative data showing their effectiveness, but these programs and their effectiveness can inspire future research on best practices.
Although there has been an increase in the number of female-focused venture and angel capital groups, an astounding imbalance persists between the amount of funding received by female founders and their male counterparts. This panel will explore strategies to help women acquire funding, as well as how funding processes can be made more equitable.

While only a small proportion of businesses in the United States acquire venture financing (about 1%), the industry still represents a significant amount of money. In 2013, venture capitalists invested $29.4 billion across 3,995 venture deals while angel investors invested $24.8 billion in 70,730 ventures.

Female entrepreneurs are underrepresented in venture deals and investments. Studies have found that female-led ventures receive between 2.7% and 7% (2013) of all venture funds invested. Fewer than 5% of startups are owned by women and of those, only 3-5% of all women-owned businesses receive venture capital funding. Even though women-operated, venture-backed companies have 12% higher revenues, male-owned businesses receive 95% of all VC money awarded. Of all ventures receiving equity capital, fewer than 5% have a woman holding any executive role.

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Women are also underrepresented on the supply side of capital. In 1999, only 10% of partners at VC firms were female. By 2014, that percentage had dipped to 6%. As of 2014, 77% of VC firms did not have a female investor.

**Introduction to Session 1.2: Strategies for Improvement**

Again, all efforts should include the programmatic elements and consider the biases outlined in the introduction. In addition to those considerations, strategies to improve gendered disparities regarding capital include:

**Encouraging Women to Become Investors.** Only 6% of partners at VC firms are female today. Yet studies show that firms are more likely to invest in a female entrepreneur if a female partner is present. Increasing the number of female partners at these firms could reduce funding disparities.

**Effective Strategies Include:** The implementation of formal feedback mechanisms and formal hierarchies are useful in more equitably assessing performance and aptitude.

**Supporting Female Focused Funds.** Funds may focus on hiring and training female investors (e.g. Astia, Pipeline Fellowship) or on financing female founders (e.g. 500 Women, Cowboy Ventures, Aspect Ventures, Illuminate Ventures), or both. Firms with these focuses have been shown to have a noticeable effect on the number of female-run startups funded.

**Invest proactively in building social networks.** Investing is a relationship-based experience. Female entrepreneurs seeking funding should strive to build connections before doing so, to proactively establish credibility in the industry.

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In recent years, an increasing amount of attention has been paid to the conditions and barriers faced by women in the tech sector. The conversation has become more prevalent as more women have resorted to legal actions or public announcements. While the increased public attention is an important step toward social change, it has yet to elicit widespread or substantial improvements.

Conversations in this track will explore effective ways to create environments in which both women and their employing companies prosper. We will focus on public and corporate policies that can aid in the attraction, retention and advancement of women in tech.

**This track is ideal for:** Mid- to large-size company employees and executives, policymakers, and others concerned with gender equality at the corporate level.

**Overarching problems that can exist at this level include:**

- Attrition Rates
- Unrecognized Biases
- Work-Family Conflicts
- Exclusion from Social Networks
- Lack of Quality Mentors, Role Models and Sponsors
- Subtle or Overt Sexual Harassment
Session 2.1
Corporate & Public Policies to Attract Women to Tech Companies

Research by organizations such as the National Center for Women in Tech and the Anita Borg Institute have documented that there are specific steps that companies can take to address the issues affecting the gender gap in tech.

The issues are many and the solutions must also thus have to be multi-pronged. Some key issues that strategies can address include that young women lack role models at the highest levels; for instance, only 7.1% of board directors are female in the tech sector. The prospect of wage gaps and the increasingly public perception of tech's unwelcoming organizational culture can discourage young women and hurt recruitment efforts. Subtle, unconscious biases entrenched in outreach and hiring processes can further exacerbate inequalities. Existing referral practices can promote homogeneity, with current outreach and hiring processes often weeding out some women before they reach employment.

Pipeline issues are also often blamed for the lack of diversity in tech. Thus, pipeline strategies are an important component of overall efforts to attract more women into tech, although not the only component and not the focus of this conference. Young women are less likely to be encouraged to pursue technical careers than their male peers, and the effects are apparent by the time they reach college. Although women received 57.3% of all bachelor's degrees

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57 Pipeline issues are crucial, but this conference is focusing on issues at the startup and corporate level instead, given the tremendous amount of wonderful work already being done in the education and pipeline arena.
awarded in 2011, they received only 18.2% of computer science degrees.\textsuperscript{58} Furthermore, between 2000 and 2014, the number of first-year undergraduate women interested in majoring in computer science declined by 7%.\textsuperscript{59}

In tandem with the strategies outlined earlier, this track will explore how companies can better attract women to technical positions.

**Introduction to Session 2.1: Strategies for Improvement**

**Before the Interviews: Improve Company Reputation.** If companies want to attract more women, they must send clear signals to the community and potential female employees that the company is a healthy environment for women, demonstrating that they will be valued and given the opportunity to succeed.

**Effective Strategies Include:** Displaying transparency by releasing the gender composition of company employees\textsuperscript{60}; Publicly investing in programs that train and support women in STEM at all levels; Showing potential female employees that they have the opportunity to succeed by highlighting women’s presence at the highest levels; Implementing gender-balanced internship programs for technical positions.\textsuperscript{61}

**Before the Interviews: Diversify the Candidate Pool.** Underrepresentation of women and other groups can begin in the earliest hiring stages, starting with the pool of candidates being considered. Referrals by current employees and traditional recruitment avenues can support company homogeneity, but companies can take deliberate steps to expand the pool.\textsuperscript{62}

**Effective Strategies Include:** Building strong ties to conferences, academic institutions and professional organizations can connect companies to diverse candidates; Implementing gender-balanced internship programs for technical positions, which creates a pipeline for applicants; Using social networks and partnerships to strategically


\textsuperscript{62} Ibid.
diversify the pool of applicants;\textsuperscript{63} Removing names and gender identifying information from resumes and applicant materials when possible;\textsuperscript{64} Publically posting job openings.\textsuperscript{65}

**The Hiring Process: Deliberately Establish, Codify, and Monitor Hiring Practices.** The hiring process can be influenced by unconscious biases. Evaluating these processes can mitigate those biases.

**Effective Strategies Include:** Instituting a blind resume screening process; Building gender-diverse hiring teams and showcase technical women during the interview process, as interviews often inherently tend to hire people with whom they share characteristics; Requiring that every open technical position has a viable female candidate; Supporting and reward hiring managers' open hire practices; Adapting the interview process to be welcoming to diverse candidates; Training hiring teams and managers to reduce implicit biases; Implementing dual-career support mechanisms when relocation is involved.\textsuperscript{66}

**Management Training and Accountability.** Implementing a set of conditions to improve the attraction of women is necessary but insufficient. Hiring managers can be trained to recognize and avoid biases, and be held accountable for meeting diversity standards.

**Effective Strategies Include:** Creating codified criteria for hires and ensure that hiring managers provide tangible evidence for choices based on concrete examples; Removing subjective components from the interview, hiring, and performance evaluation processes; Teaching managers to identify and avoid their own biases (e.g. continuously emphasizing candidates’ specific accomplishments to mitigate the potential for implicit bias); Giving hiring managers and teams ample time as pressure to hire quickly often leads teams to follow implicit biases; Creating an incentive system to meet workforce goals; Institute systematic reporting and oversight mechanisms.\textsuperscript{67}

\textsuperscript{63} Ibid.


\textsuperscript{67} Ibid.
Women in tech face professional obstacles; perhaps unsurprisingly, mid-career women in tech attrite at double the rate as men. According to a study by the Center for Work-Life Policy, 74% of women in technology report they “love their work,” and yet these women exit their careers at a staggering rate: 56% of technical women leave the tech sector at the “mid-level” point, 10-20 years into their careers. With their experiences, these exits happen at the point when the loss of their talent is most costly to companies.68

Women exit for a variety of reasons. They are most likely to leave their careers in tech around age 35, as they notice their careers beginning to stall after one or two promotions.69 In performance reviews, women are more likely to be evaluated on personality traits, and more likely to receive negative feedback about their personalities. Women face conflict between how employees are expected to behave for success at work, and how women are expected to behave in general.70 In addition to these unbalanced review mechanisms, women in tech face an average pay gap of 12%.

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70 Ibid.
Introduction to Session 2.2. Strategies for Improvement

Developing a Supportive Culture. A combination of workforce cultural issues, practices and policies can influence attrition rates. Companies should be proactive in supporting and retaining women.\footnote{Ashcraft, Blithe. “Women in IT: The Facts” National Center for Women and Information Technology. April 2010.}

- **Effective Strategies Include:** Implementing formal mentorship programs; Deliberately assigning communal ‘housekeeping’ tasks more fairly (which tend overwhelmingly to fall to women); Implementing transparent compensation practices; Embedding collaboration into the corporate culture to encourage diverse ideas;\footnote{Gammal, D., Simard C. “Women Technologists Count. Recommendations and Best Practices to Retain Women in Computing” Anita Borg Institute Solutions Series.} Establishing mentoring programs on technical and career development; Funding and support workshops and conferences that focus on career path experiences and challenges faced by women technologists; Sponsoring employee resource groups for mutual support and networking; Instituting flexible work arrangements and tools that facilitate work-life integration; Enacting employee leave policies and providing services that support work-life integration.\footnote{Ibid.}

**C-Suite Attention & Support.** A key component to sustainable company cultural change is clearly signaling that the efforts are taken seriously at the top. Executives and managers must be visibly supportive of, and held accountable for, reaching diversity goals.\footnote{Emerson, J. “Prioritizing Diversity in 2015.” Wired. Jan 24,2015. http://techcrunch.com/2015/01/24/prioritizing-diversity-in-2015/}

**Management Training.** It is important for women and men who are in management positions to examine notions held about women and men, about careers and success, and to make sure they are comparable and fair.\footnote{“Issues Affecting Women in STEM; a Repository of peer-reviewed research.” https://www.cfa.harvard.edu/~srugheimer/Women_in_STEM_Resources.html}

- **Effective Strategies Include:** Formally training managers in best practices and implementing measures of accountability for meeting retention metrics\footnote{Gammal, D., Simard C. “Women Technologists Count. Recommendations and Best Practices to Retain Women in Computing” Anita Borg Institute Solutions Series.}; Methodically considering company advancement criteria against the employee’s strengths and weaknesses, redesigning
performance reviews to explicitly measure only job expectations and required duties.

Creating Pathways for Success. Many women who depart from careers in the tech sector do so because they notice their careers stalling.

**Effective Strategies Include:** Ensuring that performance review and assessment processes evaluate men and women evenly; Ensuring that compensation mechanisms aren’t subject to biases (e.g. being contingent upon personal promotion of accomplishments, a system under which women are typically penalized).  

Accountability and Enforcement. Policy efforts to retain female employees by improving gender disparity and discrimination must be measurable and enforceable.

**Effective Strategies Include:** Implementing strong but flexible policies as early as possible (because it is easier to build a supportive culture than to fix a flawed one, while flexible because policies may turn out to be ineffective and call for revision); Creating clear and objective criteria for advancement; Identifying and implementing company-specific measures of common biases and ways to counter them; Creating a solid reporting system that makes women feel safe and supported in reporting harassment.  

77 Ibid.  
78 Ibid.
“Silicon Valley’s Women Problem: Only 7% Of Tech Boards Are Female.”  

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