

# **TECH NEEDS MORE MEN**

## **TO SUPPORT GENDER EQUALITY**

An exploration of the barriers men face in trying to support gender equality and how we might reduce those barriers to encourage more men to get involved

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Submitted to OCAD University in partial fulfillment of the requirements for the degree of Master of Design in Strategic Foresight & Innovation  
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# ABSTRACT

The technology sector has traditionally been dominated by men. In 2015, the ratio of men to women in most tech companies large and small was 7 to 3. However, while companies are working on diversifying their workforce, the culture of the industry has been slow to change and women are leaving the tech industry in droves. More recently, there has been a flurry of activity around empowering women. However, gender equality is not only a women's issue. True equality requires involvement from everyone—both men and women. This project explores the challenges men face in supporting women within their technology organizations; without addressing the barriers men face we will not be able to realize the full potential and benefits of their advocacy. The project uses participatory design and generative research to co-create and prototype a toolkit of resources for male advocates.

**Keywords:** Action Research, Gender studies, Participatory Design, Generative Research, Co-creation

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## DEDICATION

To male advocates everywhere. This work is dedicated to you.

Your efforts, big and small, have not gone unnoticed and I appreciate your drive to make this a better place for all genders.

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# PREFACE

*One of my most vivid memories is when I was told I was perfect for a role but that the old, white-haired men I would work with wouldn't take me seriously.*

*– Pansy Lee*

Despite my topic being about women in the technology sector, my MRP aims to understand the topic from the men's point of view. Much of the commentary around women in tech highlights the struggles women face, and rightfully so; but in order to make strides toward gender equality, expecting men to do the "right thing" without addressing their obstacles and fears isn't going to get us closer to gender equality in tech.

From a practical and personal perspective, I have worked in the technology sector since 2001 and am, in many ways, a poster child for diversity: woman, LGBT, Asian. The tech sector is male-dominated and I have been fortunate to have worked at organizations, on teams, and for managers (male and female) who actively support me, ensure my work is visible, and go to bat for me. Even so, in some of the most progressive companies where I've worked, I've witnessed and experienced unintentional gender bias, sexist comments, boys' clubs, and wage gaps.

If I'm experiencing this while working at companies and for managers who try hard to make things better, I can only imagine what it's like for women at organizations that aren't as progressive.

Throughout my career, I've met men who feel that inequality is wrong and want to see it change, but struggle to get involved, don't know where to start, or worry about people misunderstanding their intentions. When they do speak up, they face a range of responses from both men and women—everything from indifference to admiration to hostility to support.

My hypothesis is that if we can understand and reduce the barriers these men face, we can inspire more men to actively support gender equality in the technology sector.

# 1. INTRODUCTION

*We want to end gender inequality—  
and to do that we need everyone to be involved.*

*I have realized that fighting for women's rights has too often  
become synonymous with man-hating. For the record, feminism  
by definition is: "The belief that men and women should have  
equal rights and opportunities. It is the theory of the political,  
economic and social equality of the sexes."*

*Feminism has become an unpopular word but it is not the word  
that is important but the idea and the ambition behind it.*

*How can we affect change in the world when only half of it is  
invited or feel welcome to participate in the conversation?*

*Men—I would like to take this opportunity to extend your formal  
invitation. Gender equality is your issue too.*

*Ask yourself if not me, who? If not now, when?*

*– Emma Watson, United Nations HeForShe  
Campaign Speech [abridged]<sup>1</sup>*

There has been a flurry of activity around gender equality issues the last few years, particularly in the technology sector. Fast Company publishes two to three articles on this topic every week<sup>2</sup>. Sheryl Sandberg, COO of Facebook, wrote a book called *Lean In: Women, Work, and the Will to*

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<sup>1</sup> Emma Watson: Gender equality is your issue too. (2014, September). Retrieved from <http://www.unwomen.org/en/news/stories/2014/9/emma-watson-gender-equality-is-your-issue-too>

<sup>2</sup> Strong Female Lead Section. (n.d.). Retrieved from <https://www.fastcompany.com/section/strong-female-lead>

*Lead*<sup>3</sup> which has gained much press and popularity among women technology circles; there has been a string of discrimination lawsuits bringing this issue into the spotlight (Ellen Pao vs VC firm Kleiner Perkins, Tina Huang vs Twitter, Chia Hong vs Facebook). However, it's not enough to just encourage women to "Lean In" and make their voices heard; we also need to mobilize men.

There are varying stances on the inclusion of men in the movement for gender equality, from Radical Feminism, where male domination is seen as the primary oppression of women,<sup>4</sup> to feminists, such as bell hooks, who believe that feminism is for everybody.<sup>5</sup> The reality is that in order for gender equality to succeed, it requires engagement by people of all genders. One can argue that exclusion can even have detrimental results—as seen by the emergence of Men's Rights Movements such as A Voice for Men.<sup>6</sup> Case in point: when I posted directional signs for my research workshop titled, "Tech needs more men...to support gender equality", someone wrote "lol mens rights" on my sign. (Figure 1).

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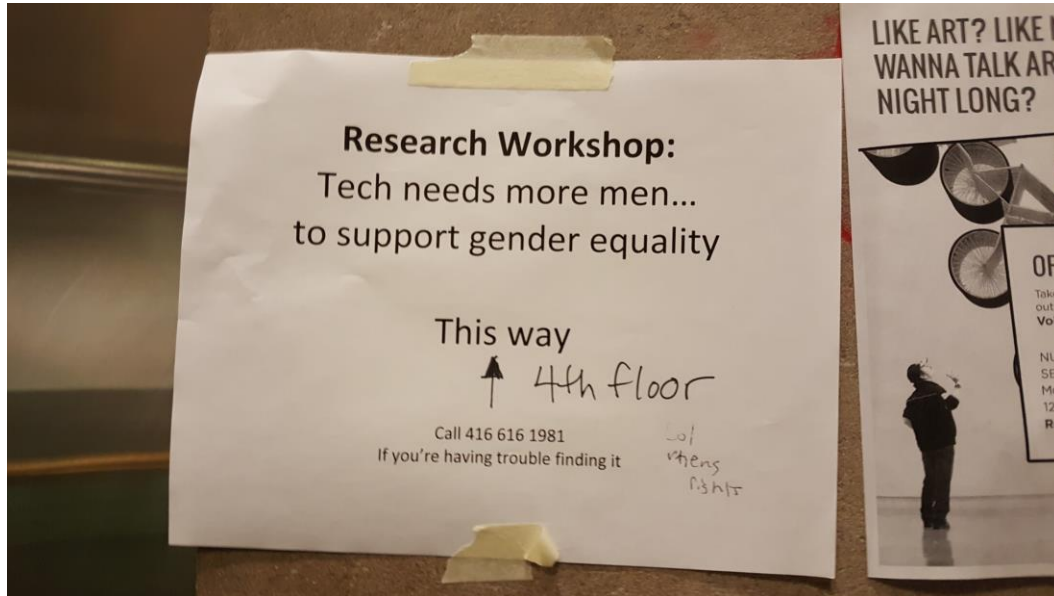
<sup>3</sup> Sandberg, S. (2013). *Lean in: Women, work, and the will to lead*. Random House.

<sup>4</sup> Rowland, R., & Klein, R. (1996). Radical feminism: History, politics, action. *Radically Speaking: Feminism Reclaimed*, 9–36.

<sup>5</sup> hooks, b. (2000). *Feminism Is for Everybody: Passionate Politics*. MA: South End Press.

<sup>6</sup> A Voice for Men. (n.d.). Retrieved from <http://www.avoicemen.com>

Figure 1: My research workshop sign posted outside the elevator on the main floor of the OCAD Graduate Studies building (205 Richmond St W, Toronto, ON) on September 15, 2016 where someone wrote “lol mens rights” on the sign



Furthermore, as we’re seeing more invitations to male allies to join the gender equality movement, there have been similar calls to allies to join other equality movements such as civil rights and LGBT rights:

- Martin Luther King, Jr. called for allies to join them on their march from Selma to Montgomery, “calling on religious leaders from all over the nation to join us on Tuesday in our peaceful, nonviolent march for freedom”<sup>7</sup>
- Harvey Milk said in 1978: “Gay brothers and sisters, you must come out. Come out to your parents. I know that it is hard and will

<sup>7</sup> King, Jr, M. L. (1965, March 7). Statement on violence committed by state troopers. Selma, AL.



hurt them, but think about how they will hurt you in the voting booth! [...] But once and for all, break down the myths. Destroy the lies and distortions. For your sake. For their sake.”<sup>8</sup> “They’ll vote for us 2 – 1 if they know one of us,” Milk said during his fight against Proposition 6, a bill that would have barred gay teachers from schools.<sup>9</sup>

Learning from these lead examples, it highlights the importance of empowering male allies to advocate for gender equality. The civil rights movement and LGBT movement were able to make significant advancements by focusing on and involving allies alongside their own efforts:

- In April 2016, the National Center for the Study of Civil Rights and African-American Culture at Alabama State University held its 10th annual Robert and Jean Graetz Symposium to recognize the role of white allies during the Civil Rights Movement.<sup>10</sup>

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<sup>8</sup> Shilts, R. (2008). *The Mayor of Castro Street: The Life and Times of Harvey Milk*. Macmillan.

<sup>9</sup> Van Sant, G. (2008). *Milk*.

<sup>10</sup> Ervin, T. (2016, April 22). Graetz Symposium Honors White Civil Rights Allies. Retrieved from <http://www.alasu.edu/news/news-details/index.aspx?nid=2839>

- The book, *Refusing Racism: White Allies and the Struggle for Civil Rights*, tells the stories of allies who risked their lives to advocate for change.<sup>11</sup> Among those stories:
  - Virginia Foster Durr, who fought against the poll tax and southern white male domination
  - J. Waties Waring, a federal judge who opened white primaries to black voters
  - Anne McCarty Braden, who went against racist real estate practices and the House Un-American Activities Committee and organized white southerners to support the civil rights movement
  - Herbert Kohl, a writer and educator from New York City who authored 26 books about education and civil rights
- In 2011, there was a comparative study that sought to identify the factors, such as the role and influence of allies, that led to the inclusion of same-sex partners on the immigration systems of Australia and Israel. It found that forming partnerships with members of government institutions was integral to the success of the Australian gay and lesbian immigrant rights movement. And in

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<sup>11</sup> Brown, C. S. (2002). *Refusing Racism: White Allies and the Struggle for Civil Rights*. New York: Teachers College Press.

Israel, government members served as crucial allies of gay rights, even though there was no formal social movement.<sup>12</sup>

If there wasn't a formal invitation for men to join the gender equality movement before, there certainly is one now with Sheryl Sandberg inviting men to #LeanInTogether<sup>13</sup>; Emma Watson's UN speech on the need for men to get involved with gender equality<sup>14</sup>; and the UN Women's HeForShe initiative<sup>15</sup>. Having said that, it's one thing to call them to the table, it's another to set them up for success.

## WHO IS THIS FOR?

*When is she supposed to start a family then?*

*– My male colleague's response to another male colleague's comment on how inconvenient it was that his female report was having a second baby having just come back from maternity leave*

This topic was inspired by the men who have supported me through my career and in my life. This work is for men like them. It is for those who are

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<sup>12</sup> Ho, S. I., & Rolfe, M. (2011). Same-sex partner immigration and the civil rights frame: A comparative study of Australia, Israel, and the USA. *International Journal of Comparative Sociology*, 52(5), 390–412.

<sup>13</sup> LeanInTogether. (n.d.). Retrieved from <http://leanin.org/together>

<sup>14</sup> Emma Watson: Gender equality is your issue too. (2014, September). Retrieved from <http://www.unwomen.org/en/news/stories/2014/9/emma-watson-gender-equality-is-your-issue-too>

<sup>15</sup> HeForShe. (n.d.). Retrieved from <http://www.heforshe.org>

aware that there is little support for women in tech and who want to see gender equality become a reality.

There are already a number of resources aimed at organizational leaders such as C-level executives, human resources departments, and large scale initiatives (See Appendix A). The goal of this project is to develop a prototype toolkit for entry-level to middle-management males who 1) may not be in a position to affect large scale change; and/or 2) have colleagues or direct reports who are women. It is meant to support these men with tips on how they might be more supportive in their everyday interactions with the women they work alongside; because for many women who are left out of men-only social events, sexually harassed, or constantly interrupted and spoken over, the experience has been like Ellen Pao's, who once described it as "death by a thousand cuts."<sup>16</sup> These everyday interactions can have profound effects on women's experiences in the tech work environment and can influence whether they stay and grow their careers in this industry.

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<sup>16</sup> ABC News. (2015). *Ellen Pao Talks About Gender Bias and Discrimination in Silicon Valley | Nightline | ABC News*. Retrieved from [https://www.youtube.com/watch?v=f\\_Mbi5Rg1Fs](https://www.youtube.com/watch?v=f_Mbi5Rg1Fs)

## 2. CONTEXT

*“Can I get anyone a cup of coffee?”*

*It was second nature, a reflex. When you enter a room and stop at the coffee pot, you offer others a cup as well.*

*[However,] if you’re a woman who does that in a room full of men, you’re met with this response: “Oh, you must be the assistant from the bank.”*

*So I smiled, held out my hand and introduced myself.*

*“Hi, I’m Sheila Lirio Marcelo,  
the founder, chairwoman and CEO of Care.com.”*

*– Sheila Lirio Marcelo<sup>17</sup>*

Gender inequality is certainly not unique to the tech industry. There are other industries where women are underrepresented, particularly in industries that require more physical strength, such as construction and mining, 9% and 13% respectively.

However, in industries where physical strength is less important, the percentage of women who work in those industries are much higher, ranging from 39 – 75% (Table 1). Sadly, the percentage of women in the

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<sup>17</sup> Marcelo, S. L. (2016, November 3). Solving tech’s diversity problem, over coffee. Retrieved from <https://www.linkedin.com/pulse/solving-techs-diversity-problem-over-coffee-sheila-lirio-marcelo>

tech industries (25 – 30%), which falls under industries where physical strength is less important, is well below the percentage of women in non-physical industries (39 – 75%). Even lower is the percentage of women in technical positions within some of the largest tech companies, which ranges from 10-28%. (Table 3)

Table 1: Employed persons by industry and gender (United States, 2015)

	<b>Industry</b>	<b>Women employed</b>
	Total, 16 years and over	46.8%
Physical	Construction	9.3%
	Mining, quarrying, and oil and gas extraction	13.1%
	Transportation and utilities	22.6%
	Agriculture, forestry, fishing, and hunting	24.6%
	Manufacturing	29.1%
Non-Physical	Information	39.1%
	Software publishers	30.3%
	Professional and business services	41.1%
	Computer systems design and related services	25.6%
	Wholesale and retail trade	44.8%
	Public administration	45.3%
	Leisure and hospitality	51.1%
	Other services	51.8%
	Financial activities	53%
	Education and health services	74.6%

**Source:** U.S. Bureau of Labor Statistics. (2016, February 10). Employed persons by detailed industry, sex, race, and Hispanic or Latino ethnicity. Retrieved from <https://www.bls.gov/cps/cpsaat18.htm>

## HISTORY

While much of the gender equality challenges we see in tech today is that it is male dominated, it wasn't always like this. In the early days, computers and programming were thought to be women's work—similar to typing or filing. In fact, in 1943, the term “computer” was used to describe a person who performs mathematical calculations; and almost all computers were women.<sup>18</sup> When the U.S. Army needed six human computers they were all women, known as the ENIAC girls and are often hailed as the first computer programmers.<sup>19,20</sup> In 1967, *Cosmopolitan* magazine (Figure 2) published an article encouraging women to consider programming as a profession.<sup>21</sup>

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<sup>18</sup> Light, J. (1999). When Computers Were Women. *Technology and Culture*, 40(3), 455–483.

<sup>19</sup> Light, J. (1999). When Computers Were Women. *Technology and Culture*, 40(3), 455–483.

<sup>20</sup> Ensmenger, N. L. (2010). *The Computer Boys Take Over: Computers, Programmers, and the Politics of Technical Expertise*. Cambridge, MA: The MIT Press.

<sup>21</sup> Mandel, L. (1967, April). The Computer Girls. *Cosmopolitan*, 52, 54.

Figure 2: Article in 1967 Cosmopolitan Magazine on a career in computing



Source: Mandel, L. (1967, April). The Computer Girls. Cosmopolitan, 52, 54.

However, the tide started to turn in the 1960s, raising the barriers of entry for women. Nathan Ensmenger writes in his book, *The Computer Boys Take Over: Computers, Programmers, and the Politics of Technical Expertise*, that the professionalization of programming was a large part of why women began to be excluded. Some examples of this include:



Table 2: Barriers women faced with the professionalization of programming

Example of barrier	Within the context that...
In 1965, the Association for Computing Machinery required a 4-year degree	This was at a time when there were almost twice as many male to female undergraduates.
Aptitude and personality profile tests were a popular tool for evaluating candidates	Despite math being a poor indicator of programmer abilities, it was widely used to select candidates. This aligned more closely to the education of men.  The personality profile tests often reinforced the ideal that candidates be “detached,” which ultimately favored male programmers.
Programmers were seen as potential managers.	A commonly held belief at the time was that women programmers were unable to lead a group of male colleagues.

**Source:** Ensmenger, N. L. (2010). *The Computer Boys Take Over: Computers, Programmers, and the Politics of Technical Expertise*. Cambridge, MA: The MIT Press.

## TODAY

*While staffing our tradeshow booth at a conference where we were raffling off a scooter, I was approached by an exhibitor, an older, white man, from another tech company. Skeptically, he asked me what we did as a company almost as if he was testing me.*

*I was new to the company and hadn't perfected my pitch, so I gave, what he felt was, an unconvincing answer.*

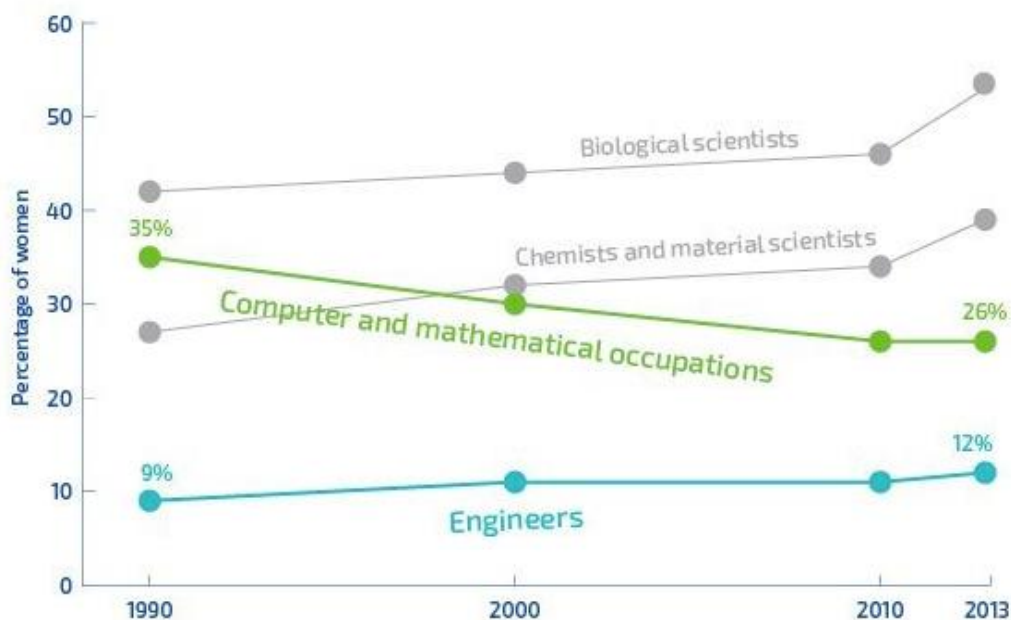
*The next question he asked me was,  
“Why don't you pose on the scooter and I'll take a picture of you?”*

*He thought I was hired to stand in the booth to attract men to the booth, a common practice in the tech and automotive industry.*

*– Pansy Lee*

The numbers speak for themselves. In the U.S. in 1990, women made up 35% of computing and mathematical occupations but by 2013, the number dropped to 26% (Figure 3).

Figure 3: Women in selected STEM occupations, 1990 – 2013



**Sources:**

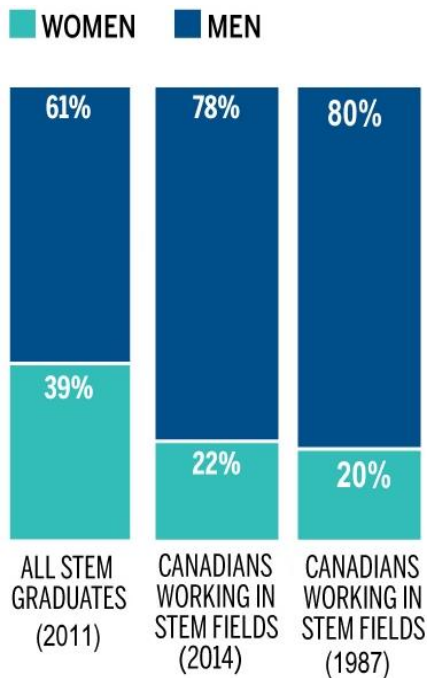
Corbett, C., & Hill, C. (2015). *Solving the Equation: The Variables for Women's Success in Engineering and Computing*. American Association of University Women. Retrieved from <http://www.aauw.org/research/solving-the-equation/>

U.S. Census Bureau (1960, 1970, 1980, 1990, 2000); L. M. Frehill analysis of data from U.S. Department of Labor, Bureau of Labor Statistics (2011, 2014)

In Canada, the research isn't as granular to show if women employed specifically in Computer Science occupations have dropped; but the percentage of women working in Science, Technology, Engineering and Math (STEM) related fields has not changed very much in almost 30

years. Women represented only 22% of the STEM workforce in 2014, which is only a 2% rise, from 20% in 1987. (Figure 4)

Figure 4: Canadian men and women in STEM programs



**Sources:**

Government of Canada, S. C. (2013, December 18). Gender differences in science, technology, engineering, mathematics and computer science (STEM) programs at university. Retrieved from <http://www.statcan.gc.ca/pub/75-006-x/2013001/article/11874-eng.htm>

Status of Women Canada Government of Canada. (2015, December 9). Status of Women Canada Ministerial Transition Book - Women in Canada: Key Trends - Status of Women Canada. Retrieved from [http://www.swc-cfc.gc.ca/transition/tab\\_2-en.html](http://www.swc-cfc.gc.ca/transition/tab_2-en.html)

Shendruk, A. (2015, June 18). Gender inequality in the sciences? It's still very present in Canada. *Macleans*. Retrieved from <http://www.macleans.ca/society/science/gender-inequality-in-the-sciences-its-still-very-present-in-canada/>

And lastly, here are gender statistics from some of the most well-known technology companies in the world:

Table 3: Percentage of women in workforce, tech positions, and leadership positions within tech companies

	<b>Women in</b>		
<b>Company</b>	<b>Workforce</b>	<b>Tech positions</b>	<b>Leadership positions</b>
Slack (2016)	43.1%	28.%	43%
Apple (2016)	32%	23%	28%
Facebook (2015)	32%	16%	23%
Google (2016)	31%	19%	24%
Salesforce (2015)	30%	23%	19%
Twitter (2014)	30%	10%	21%
Microsoft (2015)	26.8%	16.9%	17.3%

**Sources:**

Slack. (2016, February 4). Diversity and Inclusion: An update on our data. Retrieved from <https://slackhq.com/diversity-and-inclusion-an-update-on-our-data-7af803cedae4>

Apple - Inclusion & Diversity. (2016, June). Retrieved from <http://www.apple.com/diversity/>

Driving Diversity at Facebook | Facebook Newsroom. (2015, May 31). Retrieved from <https://newsroom.fb.com/news/2015/06/driving-diversity-at-facebook/>

Diversity - Google. (2016, January). Retrieved from <https://www.google.com/diversity>

Salesforce. (2015, August). Diversity at Salesforce. Retrieved from <http://www.salesforce.com/company/careers/diversity-numbers.jsp>

Building a Twitter we can be proud of. (2014, July 23). Retrieved from <https://blog.twitter.com/2014/building-a-twitter-we-can-be-proud-of>

Come as you are. Do what you love. (2015, September 30). Retrieved from <http://www.microsoft.com/en-us/diversity/inside-microsoft/default.aspx>

Slack is significantly higher and it is worth noting that Slack CEO Stewart Butterfield is actively supporting equality issues as he scales up the company.<sup>22</sup> Other tech leaders who are making great strides in closing the gaps are:

- Salesforce, a company of CEO Marc Benioff<sup>23</sup>
  - Did a salary review in 2015 and is trying to close the pay gap within 12 months.
  - Is trying to employ an equal number of women and men, and thinks it's "absolutely doable" within five years.
  - Created programs to make women more visible, one of which requires meetings to include at least 30% women.
- Vice President, Intuit Developer Platform, Vinay Pai<sup>24</sup>
  - Became aware of equality issues on his team in March 2013. They had 24% women on the team and no women in the following roles: architect, group manager (who leads other managers), or director.
  - Since then, women now hold 29% of technical roles, up from 24%. And for the roles with no women representation, there are

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<sup>22</sup> Toth, A., & Butterfield, S. (2015, September 9). Inclusion and Diversity at Slack. Retrieved from <https://slackhq.com/inclusion-and-diversity-at-slack-e42f93845732>

<sup>23</sup> King, H. (2015, June 12). Salesforce CEO: I didn't focus on hiring women then. But I am now. Retrieved from <http://money.cnn.com/2015/06/12/technology/salesforce-ceo-women-equal-pay/index.html>

<sup>24</sup> Pai, V. (2015, October 19). How to Be a Male Ally for Women in Technology. Retrieved from <https://www.linkedin.com/pulse/how-male-ally-women-technology-vinay-pai>

now women in architect roles, women who lead strategy for a team of over 100 engineers, several women as group managers who lead large development teams, and two in director positions.

While companies are beginning to focus their efforts on diversifying their workforce, the culture of the industry as a whole has been slow to change and women are leaving the tech industry at an alarming rate. In fact, 52% of women are leaving the science, engineering and tech (SET) industry, according to a research report by Center for Talent Innovation.<sup>25</sup>

### **Why are women leaving the tech industry?**

While the work environment has improved in that women are no longer subjected to blatant bias as often, women are subject to subtler interactions that ultimately drive them to leave the tech industry.

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<sup>25</sup> Hewlett, S. A., Sherbin, L., Dieudonne, F., Fagnoli, C., & Fredman, C. (2014). *Athena factor 2.0: Accelerating female talent in science, engineering & technology*. Center for Talent Innovation.

### Biased evaluations

Whether it's the evaluation of their code or how they are expected to behave, 72% of women sensed gender bias in how they are evaluated.<sup>26</sup>

There is a hotly controversial study that shows when gender is concealed, code submissions by women are accepted at a higher rate than those by men, 78.6% versus 74.6% respectively. However, if their gender is identifiable, the acceptance rate for code submitted by women drops to 71.8% and even lower to 62.5% if it's a female coder who is not known to the community.<sup>27</sup>

Another example of inherent bias is that initiatives to bring in more women are seen as "lowering the bar".<sup>28</sup> There is an unconscious bias that in order to hire women one must lower the standard so that women will meet it. The reality is that highly qualified women and minorities are out there but don't apply because they don't feel welcome. There are countless studies and press releases that show women are doing just as well as

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<sup>26</sup> Hewlett, S. A., Sherbin, L., Dieudonne, F., Fagnoli, C., & Fredman, C. (2014). *Athena factor 2.0: Accelerating female talent in science, engineering & technology*. Center for Talent Innovation.

<sup>27</sup> Terrell, J., Kofink, A., Middleton, J., Rainear, C., Murphy-Hill, E., Parnin, C., & Stallings, J. (2016). Gender Differences and Bias in Open Source: Pull Request Acceptance of Women Versus Men. *PeerJ Preprints*, (e1733v2). Retrieved from <https://doi.org/10.7287/peerj.preprints.1733v2>

<sup>28</sup> Bloomberg Television. (2015). *Moritz Says Sequoia "Looks Hard" for Women Partners, But Won't "Lower Standards."* Retrieved from <https://www.youtube.com/watch?v=1i-RXdi15Bq>

men in math and science<sup>29</sup>, make up 30 – 50%<sup>30</sup> of students in undergraduate and graduate STEM programs (Figure 4

Figure 4), and yet make up only 10-25% of tech positions (Table 3).

Biased evaluation is hard to measure but transgender people are helping to bring a whole new perspective to the conversation because they hold all the usual variables that skeptics love to cite, such as skill, career, personality, and talent as constants; only gender changes.

*I'm transgender, I was a very successful male in the business world.*

*I've also been a very successful female in the business world but I can tell you in 1995 when the transition happened I noticed a marked change in how people were not reacting to me and not doing what I said and not liking what I did.*

*I kept being told, 'you need to say please and thank you. You need to be nicer, why aren't you nicer to people.' But I thought, wait a minute, I'm doing the same thing I did before, why are you giving me a hard time?*

*I had to learn how to soften the edges of what I did and redraw the line in order to continue to be effective in my career.*

*– Jeanine, caller on KQED Forum radio show<sup>31</sup>*

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<sup>29</sup> National Girls Collaborative. (2016). State of Girls and Women in STEM. Retrieved from <http://ngcproject.org/statistics>

<sup>30</sup> Thakkar, N. (2012, January 11). CS seeks greater female involvement. Retrieved from <http://www.stanforddaily.com/2012/01/11/cs-seeks-greater-female-involvement/>

<sup>31</sup> Kim, M. (2016, November 6). I'm Sorry, But May We Discuss Tentative Speech? Forum. KQED Radio. Retrieved from <https://ww2.kqed.org/forum/2015/11/06/im-sorry-but-may-we-discuss-tentative-speech/>



The story goes the other way as well for trans people who transition from female to male.

*As a woman, I experienced bias but didn't give much weight to it.  
When I solved a tough math problem, a professor said,  
'You must have had your boyfriend solve it.'*

*When I became Ben, people treated me with much more respect.  
I am more carefully listened to, my authority less frequently  
questioned and I stopped being interrupted in meetings.*

*At one conference, another scientist said, 'Ben gave a great  
seminar today—but then his work is so much better than his  
sister's', not realizing Ben and Barbara were the same person.*

*This is why women are not breaking into academic jobs at any  
appreciable rate, people like Larry Summers imply women are  
less innately capable at the hard sciences but I have had the  
thought a million times: I am taken more seriously.*

*– Ben Barres, recounts his story in the book Just One of the  
Guys?: Transgender Men and the Persistence of Gender  
Inequality [paraphrased]<sup>32</sup>*

### Isolation

Women often find themselves on the outside of boys' clubs or feeling like they have to turn a blind eye to sexism to be included. A survey of 210 women in the tech industry with at least 10 years of experience showed

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<sup>32</sup> Schilt, K. (2010). Just One of the Guys?: Transgender Men and the Persistence of Gender Inequality. University of Chicago Press.

that over 66% felt excluded from key social/networking opportunities because of gender.<sup>33</sup>

*In my 10+ years in tech, I've found myself in many situations where I've wondered how it might be different if I were a man or felt like I couldn't speak up because I wanted to fit into the "bro culture". I've witnessed my male coworkers invited to golf outings and those same coworkers promoted when there are other more qualified people in the organization.*

*I've heard people gripe about having to "deal with" women going on maternity leave and how inconvenient it is.*

*Most of the time I let it slide because sometimes you have to pick your battles but I remember one instance when I couldn't take it any longer. After 3 years of listening to my male colleagues talk about how the women they date are overly emotional and that all women are like this, I finally spoke up and told them I was tired of hearing them stereotype all women as controlling, irrational and clingy.*

*I've seen women who speak up and the million counter points that follow. Boys will be boys. Oh that's just [insert name], he's just like that, he's harmless. You're being too sensitive. You don't understand our culture. And eventually they stop speaking up.*

*– Pansy Lee*

I wish my story was unique. But many women in tech struggle with when to play along and when to push back.

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<sup>33</sup> Vassallo, T., Levy, E., Mickell, H., Madansky, M., Porter, B., Leas, M., & Oberweis, J. (2015, May). Elephant in the valley. Retrieved from <http://www.elephantinthevalley.com>

### Lack of sponsors and mentors

Men make up 70 – 80% of leadership roles in large tech companies (Table 3). Combine that with an isolating culture and it's not surprising that 86% of women feel they did not have executive sponsors who helped open doors to more senior level positions.

However, the other side of this story is 64% of male executives, VP level and above, are reluctant to have a one-on-one meeting with junior women because they are concerned the meeting may be misconstrued by the women or by others in the organization.<sup>34</sup>

*“When I was about 35, there was heightened awareness of sex discrimination and harassment, and the lawyer and seminars scared me. I wouldn’t want to defend myself against an allegation that I did something and the other party is a woman under 30, especially if she’s attractive.”*

– Oli Thordarson, President and CEO of Alvaka Networks<sup>35</sup>

### Hostile male cultures

Everyone has unconscious biases; they are social stereotypes about certain groups of people that individuals form outside their own conscious

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<sup>34</sup> Hewlett, S. A., Peraino, K., Sherbin, L., & Sumberg, K. (2010). *The Sponsor Effect: Breaking Through the Last Glass Ceiling*. Harvard Business Review. Retrieved from <https://hbr.org/product/the-sponsor-effect-breaking-through-the-last-glass-ceiling/an/10428-PDF-ENG>

<sup>35</sup> Ashford, K. (2013, May 3). Are Men Afraid To Mentor Women? Retrieved from <http://www.forbes.com/sites/learnvest/2013/05/03/are-men-afraid-to-mentor-women/>

awareness.<sup>36</sup> Micro-aggressions are subtle but offensive comments or actions that are often unintentional or unconscious.<sup>37</sup> These are some examples of interactions that, in isolation are not alarming but, build up to make women feel that they don't belong are<sup>38,39,40,41</sup>:

- Conference or company merchandise that never comes in female sizes
- Job descriptions that are geared at men or when discussing applicants, default to the pronoun 'he'
- "Locker room" talk that objectifies women
- Dismissing or belittling people who call out sexism or brushing it off as a joke or implying they are being sensitive
- Acting surprised when a woman is good at technical or complex work
- Automatically explaining technical things to women, assuming she doesn't know

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<sup>36</sup> UCSF Office of Diversity and Outreach. (n.d.). Unconscious Bias. Retrieved from <https://diversity.ucsf.edu/resources/unconscious-bias>

<sup>37</sup> Basford, T. E., Offermann, L. R., & Behrend, T. S. (2014). Do You See What I See? Perceptions of Gender Microaggressions in the Workplace. *Psychology of Women Quarterly*, 38(3), 340–349. <http://doi.org/10.1177/0361684313511420>

<sup>38</sup> Yang, Y. L., & Wright Carroll, D. (2016). Understanding Female STEM Faculty Experiences of Subtle Gender Bias from Microaggressions Perspective. ASEE Annual Conference & Exposition.

<sup>39</sup> Hagan, K. (2014, October 14). Ways Men In Tech Are Unintentionally Sexist. Retrieved from <https://notapattern.net/2014/10/14/ways-men-in-tech-are-unintentionally-sexist/>

<sup>40</sup> Miller, C. C. (2014, April 5). Technology's Man Problem. *The New York Times*. Retrieved from <http://www.nytimes.com/2014/04/06/technology/technologys-man-problem.html>

<sup>41</sup> Weiss, S. (2015, September 7). 6 Microaggressions That Exclude Women from the Tech Industry. Retrieved from <http://everydayfeminism.com/2015/09/microaggressions-tech-industry/>

- Assuming women are in non-technical roles
- Talking over women or interrupting them

*I used to have to carry two sets of business cards to conferences.*

*One set had my cell phone number and another set didn't  
because male attendees would call me at the show  
and ask me out.*

*-Pansy Lee*

### 3. RESEARCH

*I am a male HR executive, and a Board member of my company's internal women's leadership group. I'm leading a committee of that group, which is focused on the role men can play to help increase the number of female executives at my company.*

*I recently had a female executive tell me that, as a white male, I should not be involved in diversity work.*

*– Bryan Olson, post on the  
Men Advocating for Real Change forum<sup>42</sup>*

### RESEARCH QUESTIONS

The two key research questions this project explores are:

**What challenges do men face in supporting gender equality within their technology organizations?**

and

**How might we support men in improving gender equality within their technology organizations?**

The purpose of this research project is to understand what holds men back from being fully engaged in furthering gender equality. The

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<sup>42</sup> Olson, B. (2013, October 22). A New Member Who Could Use Some Advice. Retrieved from <http://onthemarc.org/marchat/viewtopic/31/131>

hypothesis is that if we can help to reduce the barriers that keep men from participating, we can encourage more men to get involved; but that requires us to first understand the challenges they face and empathize with their barriers.

## RESEARCH METHODS

Various research methods were applied in this research project and were separated into four phases:

1. Gain understanding of current contextual environment
2. Understand the challenges men face in trying to support women in tech
3. Co-create a prototype toolkit from the challenges and test it
4. Build on, expand, and improve the challenges and toolkit based on the feedback from the first workshop participants

The following is a summary of the different research methods used in the different stages and the rationale behind them.

Table 4: Research Phase 1 – Understanding the current contextual environment surrounding gender equality

Research Method	Rationale	How/Where	Participants
Literature Review	Build on the existing research and resources around this topic.	Self-directed, online and offline research. Published journals. Resources and organizations available to men and women on gender equality.	N/A

Table 5: Research Phase 2 – Understanding the challenges men face in trying to support women in tech

Research Method	Rationale	How/Where	Participants
Participatory research, co-creation.	To allow the male participants to define and choose the challenge they want to discuss and generate ideas for.	Workshop 1. In-person.	Recruited through Ladies Learning Code male mentor network.



Table 6: Research Phase 3 – Co-create a prototype toolkit from the challenges and test it

<b>Research Method</b>	<b>Rationale</b>	<b>How/Where</b>	<b>Participants</b>
Prototyping & Survey	To test the effectiveness of the toolkit created by the male workshop participants.	Send out the toolkit created, 1 week later. Follow up daily for 1 week with anonymous surveys to gather feedback on the use of the toolkit.	Workshop participants from the first workshop conducted at the Ladies Learning Code office.

Table 7: Research Phase 4: Build on, expand, and improve the challenges and toolkit based on the feedback from the first workshop participants

<b>Research Method</b>	<b>Rationale</b>	<b>How/Where</b>	<b>Participants</b>
Participatory research, co-creation.	To allow the male participants to create and choose the challenge they want to discuss and generate ideas for.	Workshop 2. In-person.	Recruited through OCAD University student and alumni network.

## WORKSHOP

### **Research design, method, and approach**

The workshop format was chosen for its participatory design, generative research, and co-creation qualities to discover the challenges men face in their efforts to support women in tech. The same participants were then asked to work together to co-create tips or resources to produce a useful toolkit for other men.

There were two workshops:

- January 19, 2016 – 5 participants
- September 15, 2016 – 2 participants

Workshops were two hours in length and the participants were asked to generate challenges they face, theme the challenges, discuss and expand on the theme, and co-create a set of resources and tips that help to address the challenge. There were slight differences between the two workshops because of 1) the number of participants; and 2) feedback gathered from the participants in Workshop 1. The modifications were in the grouping of participants and clarity of instructions and are outlined in the Data Collection and Recording section below.

## **Selection of site and participants**

The participants were restricted to men who work in the technology sector in order to create a safe space for them to express their thoughts.

The January 2016 workshop participants were recruited through members of the organization Ladies Learning Code, who reached out to their male mentors and instructors to participate. The workshop was held in a private room at the HackerYou office, a space where many of the mentors teach.

The September 2016 workshop participants were recruited through the OCAD student and alumni network. The workshop was held at the OCAD University Graduate Building, in an enclosed student lounge. Signs were put up on the doors to request that students not enter or interrupt the research session.

The participants held a number of different technical and design roles, including developer, engineer and user experience designer. There was representation from all organization sizes, smaller organizations (under 50 employees) such as HackerYou and Compusense, medium-sized organizations (50 to 250 employees) such as Wattpad and a TV production company, to very large companies (40,000+ employees) such as CIBC and Intel. Four out of the seven participants were in lead

positions at their companies and the other three held contributor roles. Their experience level ranged from one to 10 years; the average across the participants was six years. Their educational backgrounds ranged from Computer Science, Computer Engineering or Math (4 out of 7); the other participants came from Science or Design programs. Lastly, the participants were mainly 25-35 years old (there was one participant who was 40+ years old) and 5 out of 7 were white males (the other two participants were visible minorities).

Since the participants self-selected into this workshop, we may infer that they are all men who are supportive of gender equality.

## **Data collection and recording**

Below is the agenda of the workshop and outline of how data was collected and recorded. The agenda was the same for both workshops, unless otherwise indicated. There were three modifications made between Workshop 1 and Workshop 2.

- The participants from Workshop 2 added their challenges to Workshop 1's challenges to find larger themes.
- The participants from Workshop 2 worked together the whole time since there were only two participants, while Workshop 1

participants changed groups members for the second round of the workshop.

- Workshop 1 participants took the toolkit into the field and gave feedback on its effectiveness. Workshop 2 participants were not tasked to use the toolkit and give feedback but instead used the feedback from Workshop 1 to improve the cards created in Workshop 1.

Table 8: Workshop agenda

<b>Time allotted</b>	<b>Activity</b>	<b>Purpose</b>
10 min.	Welcome. Overview of workshop	Welcome everyone, introduce myself and why I chose this topic. Go over the agenda for the workshop.
15 min.	Participant introductions	Participants introduce themselves and share why they wanted to participate in this workshop.
10 min.	Generate challenges	Individually, each participant generates a list of challenges they face in trying to support women in the tech industry <ul style="list-style-type: none"><li>• On orange or ■ post-it notes</li><li>• One challenge per post-it note</li></ul>

Figure 5: Participants from Workshops 1 & 2 generating the challenges men face in trying to supporting women in tech

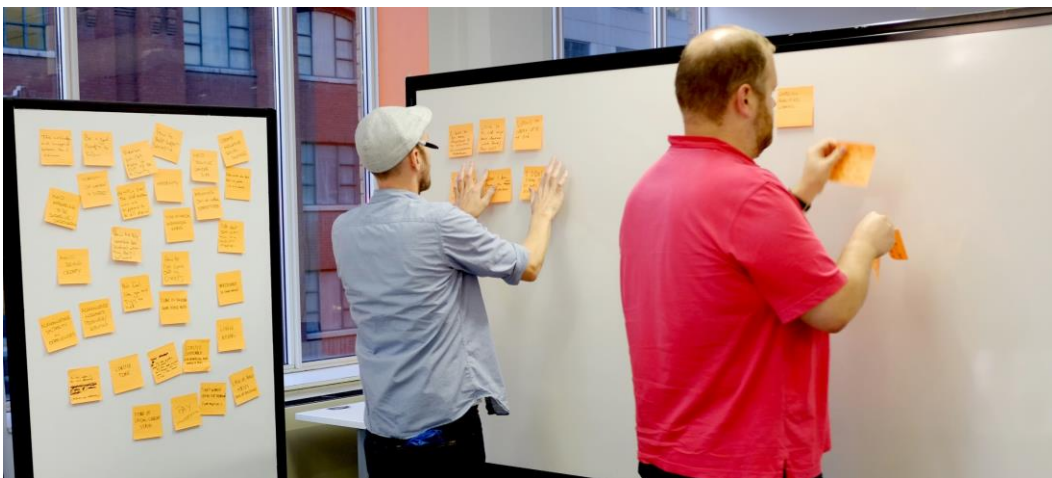
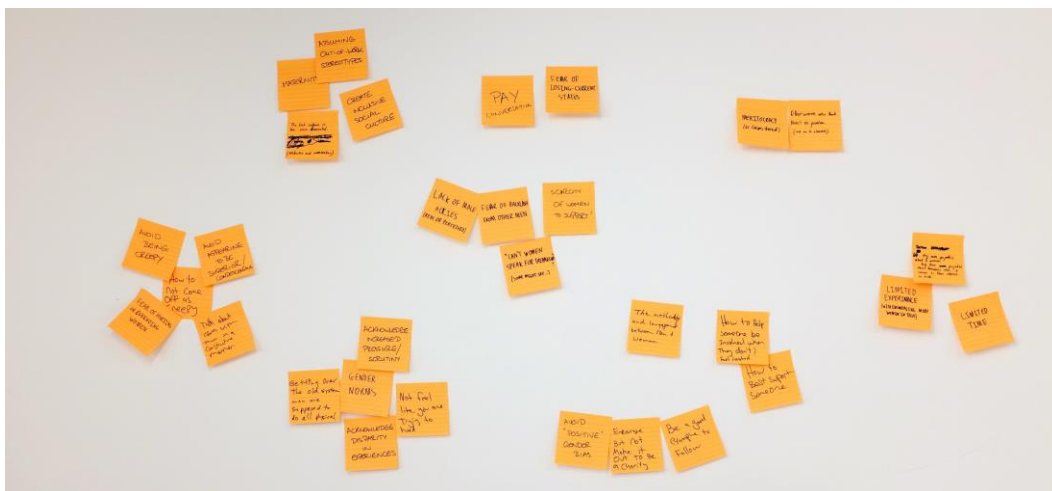


Table 7: Workshop agenda (continued)

Time allotted	Activity	Purpose
15 min.	Reduction of topics	<p>Together they group similar challenges together to identify themes</p> <ul style="list-style-type: none"> <li>• Workshop 1: Group their challenges together</li> <li>• Workshop 2: Combine their challenges with the challenges generated by the participants from Workshop 1</li> </ul>

Figure 6: Workshop 1 participants group their challenges together



A group of people are gathered around a large whiteboard in a meeting room. One man, wearing a grey shirt and a cap, is pointing at a sticky note on the board. Another man in a red shirt stands next to him, looking at the board. The whiteboard is covered with many orange sticky notes, each containing handwritten text. A window in the background shows a building outside.

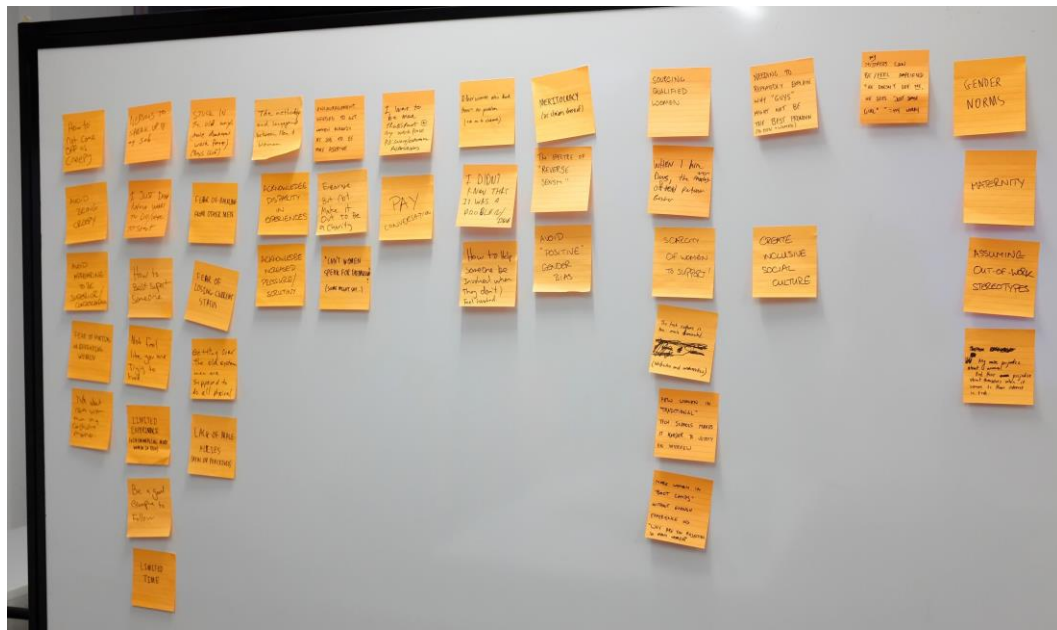




Table 7: Workshop agenda (continued)

Time allotted	Activity	Purpose
10 min.	Choose theme	<p>Participants break into groups</p> <ul style="list-style-type: none"> <li>• Workshop 1: Two groups of two to three participants</li> <li>• Workshop 2: One group of two participants</li> </ul> <p>Each group will pick a theme they want to work on.</p> <p>Take the themed challenges to their worksheet (Figure 8) and place it in the Challenge section</p>

Figure 8: Workshop worksheet

Discussion	Challenge	Notes
<div style="border: 1px solid black; height: 150px; margin: 10px;"></div>		
<div style="border: 1px solid black; height: 100px; margin: 10px;"></div>		

Table 7: Workshop agenda (continued)

Time allotted	Activity	Purpose
10 min.	Round 1: Break into groups for discussions	Groups discuss the challenge they chose and make notes  On green or + post-it notes in the Discussion Notes section

Figure 9: Participants discuss the themed challenge



Table 7: Workshop agenda (continued)

Time allotted	Activity	Purpose
10 min.	Generate ideas for toolkit	<p>After coming to a good understanding of the challenge, the group will work on ideas that address the challenge</p> <p>On pink or ♦ post-it notes in the Ideas section</p>

Figure 10: Example of a filled out worksheet with challenges, discussions, and ideas

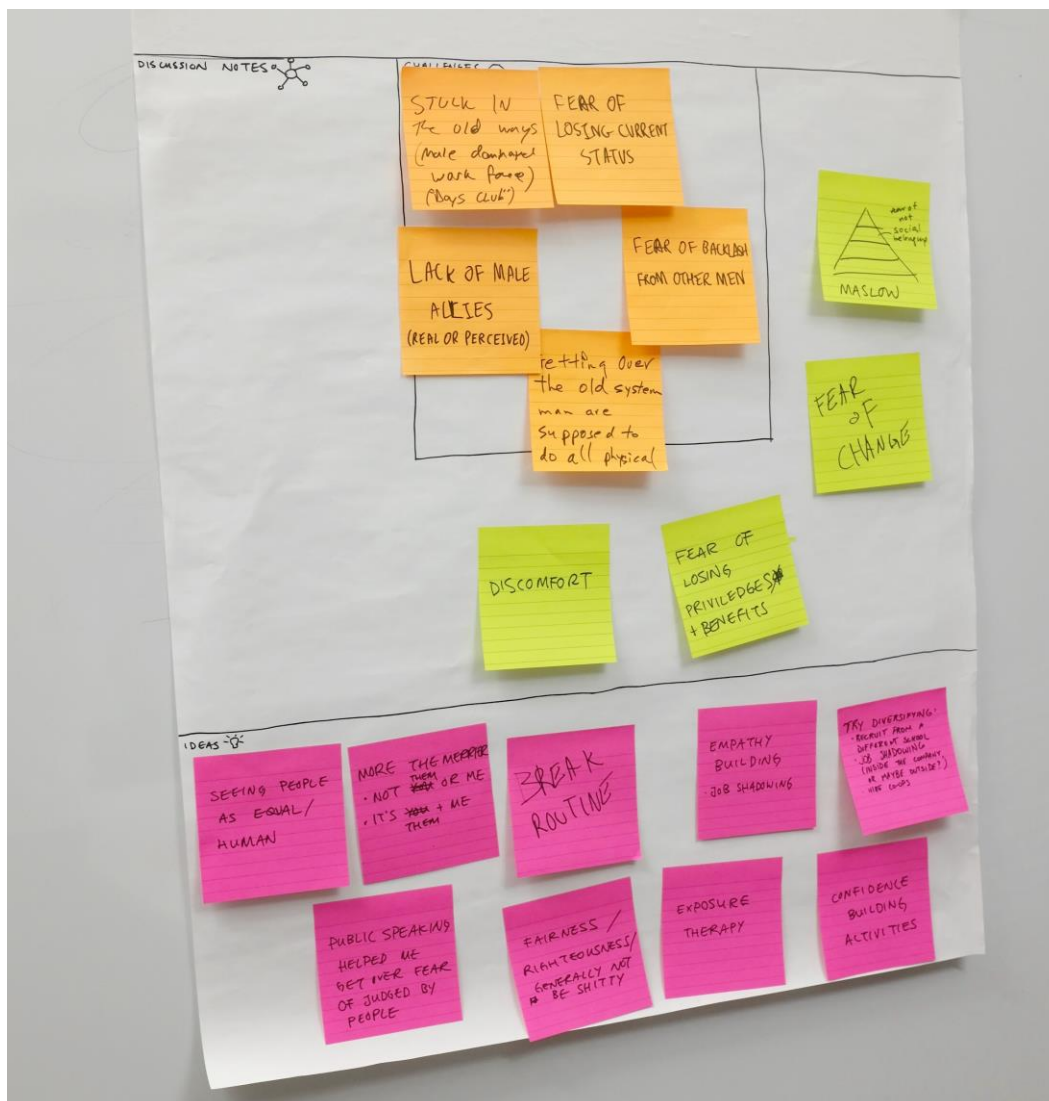


Table 7: Workshop agenda (continued)

Time allotted	Activity	Purpose
20 min.	Round 2: Choose another theme Repeat discussion & idea generation	Participants choose another theme to discuss and ideate on <ul style="list-style-type: none"> <li>• 10 min. – Break into groups for discussions</li> <li>• 10 min. – Generate ideas for toolkit</li> </ul>
20 min.	Present back	Each discussion group takes turns presenting their challenge, discussion and ideas.

Figure 11: Participants from Workshop 1 present their worksheets to each other



Table 7: Workshop agenda (continued)

Time allotted	Activity	Purpose
5 min.	Close Next steps	<p>Workshop 1 next steps:</p> <ul style="list-style-type: none"> <li>• Participants receive the toolkit generated at the workshop</li> <li>• The participants receive a series of surveys to gather feedback on the effectiveness of the toolkit</li> <li>• Use feedback to refine Workshop 2</li> </ul> <p>Workshop 2 next steps:</p> <ul style="list-style-type: none"> <li>• Participants in Workshop 2 will receive the toolkit but not the survey</li> <li>• Based on the feedback from Workshop 1, the instructions to the participants of Workshop 2 were instructed to make sure the tips were actionable</li> </ul>

## Data processing and analysis

While the participants grouped similar challenges together to find themes and ideated on a total of six challenges, some of the challenges could have been combined into a larger theme. I recombined the challenges, discussions, and ideas in order to gain an understanding of all the themes.

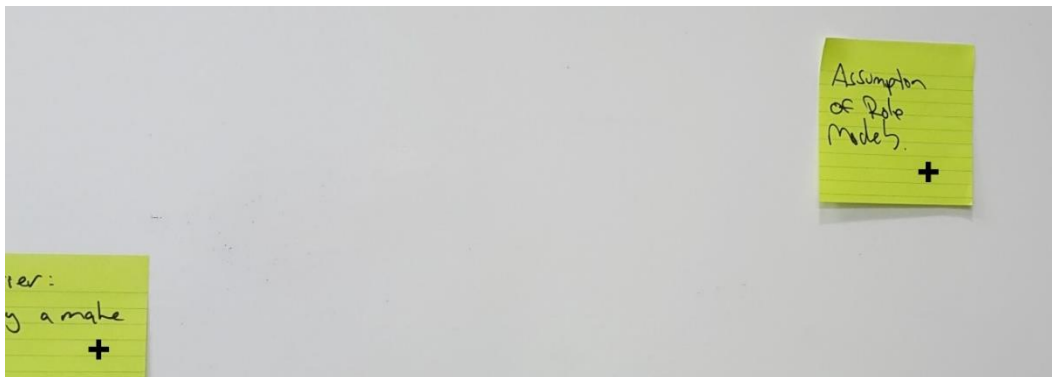
Color code	Type of information	Description
Orange or ■	Challenges	Challenges generated by participants individually
Green or +	Discussion notes	After choosing a theme to work on in small groups, they used the green or + post-it notes to document their discussions.
Pink or ◆	Toolkit ideas to address challenges	<p>After a short discussion, the small groups worked on toolkit ideas to overcome the challenge they chose.</p> <p>The toolkit tips are meant to give a person who is facing that particular challenge actionable ideas to try to overcome that barrier.</p>

- Phase 1 – Group the Challenge post-it notes into themes
- Phase 2 – Add Discussion post-it notes to the themes to add context

[illegible]

This also helped identify other themes that may have been discussed but where a Challenge post-it note was not created. All the discussion post-it notes seemed to fit nicely into the larger themes except one on the assumption of role models (Figure 13). It didn't seem to fit anywhere but perhaps I didn't understand what they were trying to say.

Figure 13: Discussion post-it note that didn't fit into a theme



## Scope and limitations

- Small sample size
- Toronto only
- Lacked diversity in age and ethnicity
- Recruited from a specific audience: Ladies Learning Code Mentors and OCAD University students and alumni.
- The participants self-selected and are likely men who are already inclined to help. The workshop therefore did not include those who

may be apathetic, lack awareness, or don't believe there is a case for gender equality.

- The workshop was facilitated by me, a woman. I did my best to create a safe physical and emotional space in which to be vulnerable and not worry about being judged; however, the results may have been different if it was facilitated by a man.

## PROTOTYPE TOOLKIT EFFECTIVENESS

### SURVEY

#### **Research design, method, and approach**

The prototype toolkit was sent out to the participants from Workshop 1 and Workshop 2. The prototype toolkit for both workshop participants included a summary of the challenges, their discussion notes, and the tips that the participants had co-created. They were asked to seek opportunities in their everyday life to put some of these tips to use.

A survey was created to collect feedback on the effectiveness of the toolkit they created. However, the toolkit effectiveness survey was only sent to Workshop 1 participants. The feedback gathered from the survey was



used to improve the clarity of the instructions for Workshop 2 participants so that the ideas generated for the toolkit would be more useful.

Workshop 1 participants were asked to share whether they had an opportunity to use the toolkit the previous day and how effective they found the toolkit and/or workshop. The survey was administered through Google Forms and was completely anonymous.

The survey sent to participants can be found in Appendix G.

### **Selection of site and participants**

The survey participants were the participants from the first workshop, which ran on January 19, 2016.

Due to the desire to gather uninhibited feedback, the survey was anonymous and so the number of participants is unknown.

### **Data collection and recording**

To collect feedback on the effectiveness of the toolkit they created, a survey was created and sent through Google Forms every morning for one week. They were asked to share whether they had had an opportunity to use the toolkit the previous day and how effective the toolkit was. The responses were anonymous.

## **Data processing and analysis**

The results of the survey can be found in Appendix H. The data was analyzed in a few different ways:

1. Coded for sentiment analysis to gauge the participants feelings and usefulness of the toolkit. Responses were marked:
  - a. Green or ★ - The participant found an opportunity to use the toolkit; they found the toolkit useful; or the workshop had other positive effects on their ability to support women in tech.
  - b. Yellow or ▲ - They did not encounter an opportunity to use the toolkit that day or they had constructive feedback on how the toolkit or workshop could have been better.
  - c. Red or ● - The participant found an opportunity but did not find the toolkit useful.
2. Qualitative comments were analyzed for themes such as:
  - a. Barriers to use
  - b. Raised awareness
  - c. Workshop improvements
  - d. Which toolkit tips were most useful

## **Scope and limitations**

- Participation in the survey was voluntary
- The response rate was low
- Unable to tell if the toolkit was useful for all the participants or only a few due to the need to balance uninhibited anonymous feedback with identifying the participant

## 4. INSIGHTS

*Back in graduate school, 11 women and me (a man) got together every week to read and discuss feminist theory. During one of our conversations, I witnessed an interaction that changed my life.*

**White woman:** *All women face the same oppression as women and therefore all women have a kind of intuitive solidarity or sisterhood.*

**Black woman:** *When you wake up in the morning and you look in the mirror, what do you see?*

**White woman:** *I see a woman.*

**Black woman:** *When I wake up in the morning and look in the mirror, I see a black woman. To me, race is visible. But to you, race is invisible. That's how privilege works. Privilege is invisible to those who have it.*

*When I look in the mirror, I see a human being. I'm a middle class white man. I have no race, no class, no gender. It was the moment I realized that class and race and gender were not about other people, they were about me and it had been privilege that kept it invisible to me for so long.*

*Making gender visible to men is the first step to engaging men to support gender equality.*

– Michael Kimmel, TEDWomen, *Why gender equality is good for everyone — men included* [abridged]<sup>43</sup>

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<sup>43</sup> Kimmel, M. (2015). Why gender equality is good for everyone — men included. Retrieved from [https://www.ted.com/talks/michael\\_kimmel\\_why\\_gender\\_equality\\_is\\_good\\_for\\_everyone\\_men\\_included](https://www.ted.com/talks/michael_kimmel_why_gender_equality_is_good_for_everyone_men_included)

## INSIGHTS FROM LITERATURE REVIEW

In conducting a literature review to better understand the motivations, fears, and beliefs around gender equality, a number of prominent themes emerged.

### Lack of awareness<sup>44,45,52</sup>

For many men, their inaction is due to a lack of awareness or understanding of the privilege they have; or they are unaware of how their actions contribute to gender inequality.

### Nature vs. Nurture<sup>45,46,49,51,52</sup>

The Nature Theory suggests that men and women biologically have more aptitude for different subjects. The Nurture Theory suggests that the environment is the primary force that determines aptitude for different subjects. This includes some related themes:

- Unconscious bias: automatic judgements made based on stereotypes such as traditional gender roles.

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<sup>44</sup> Catalyst. (n.d.). Developing Male Champions by Engaging Men in Gender Initiatives. Catalyst. Retrieved from

<http://www.catalyst.org/uploads/engagingmeningenderinitiatives1.pdf>

<sup>45</sup> Prime, J., Moss-Racusin, C., & Foust-Cummings, H. (2009). *Engaging Men in Gender Initiatives: Stacking the Deck for Success*. Catalyst.

<sup>46</sup> Summers, L. (2005, January). *Diversifying the Science & Engineering Workforce*. Presented at the National Bureau of Economic Research, Cambridge, MA. Retrieved from [http://www.harvard.edu/president/speeches/summers\\_2005/nber.php](http://www.harvard.edu/president/speeches/summers_2005/nber.php)

- Pipeline issue: many organizations will cite the lack of women as their barrier to reaching gender parity.

### Equality comes at a cost<sup>44,47,48</sup>

The belief that gender equality is a zero-sum game where the gains of women or minorities are perceived as men's losses. They see a limited number of promotions and organizational dollars and perceive that women are chosen because of their gender and therefore at a cost to their merit.

### Affirmative action is seen as lowering the bar<sup>49,50,52</sup>

Some perceive efforts to increase diversity as unfair or as lowering company standards. A prevailing belief is that merit is more important than diversity. However, in studies in which a woman's code is judged without revealing her gender, there is high acceptance; but when her gender is revealed, her code is more heavily scrutinized.<sup>51</sup>

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<sup>47</sup> hooks, b. (2000). *Feminist theory: From margin to center (Men: Comrades in Struggle)*. Pluto Press. Kimmel, M. (2013). Is it the end of men, or are men still in power? Yes! *Boston University Law Review*, 93, 689–695.

<sup>48</sup> Kimmel, M. (2013). Is it the end of men, or are men still in power? Yes! *Boston University Law Review*, 93, 689–695.

<sup>49</sup> Bloomberg Television. (2015). *Moritz Says Sequoia "Looks Hard" for Women Partners, But Won't "Lower Standards."* Retrieved from <https://www.youtube.com/watch?v=1i-RXd15Bg>

<sup>50</sup> Bhatia, A., Hay, B., Stellmaszek, F., Fraenkel, M., & Joshi, R. (2015). *The Diversity Paradox: Capturing the Value of Difference by Looking Beyond the Numbers*. The B Team.

<sup>51</sup> Terrell, J., Kofink, A., Middleton, J., Rainear, C., Murphy-Hill, E., Parnin, C., & Stallings, J. (2016). Gender Differences and Bias in Open Source: Pull Request Acceptance of Women Versus Men. *PeerJ Preprints*, (e1733v2). Retrieved from <https://doi.org/10.7287/peerj.preprints.1733v2>

### Apathy<sup>44,52</sup>

Some men are aware of gender disparity or inequalities but are not compelled enough to take affirmative action, such as actively changing their behavior or creating initiatives to address the disparity or inequality.

## INSIGHTS FROM WORKSHOPS

After the analysis of the challenges and discussions, five themes emerged. The following are the five challenges/barriers men face in trying to support women in tech. (■ for challenges. + for discussions)

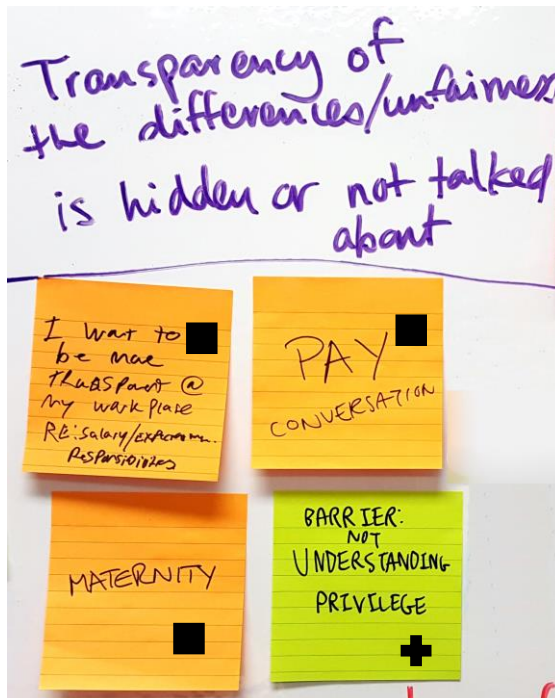
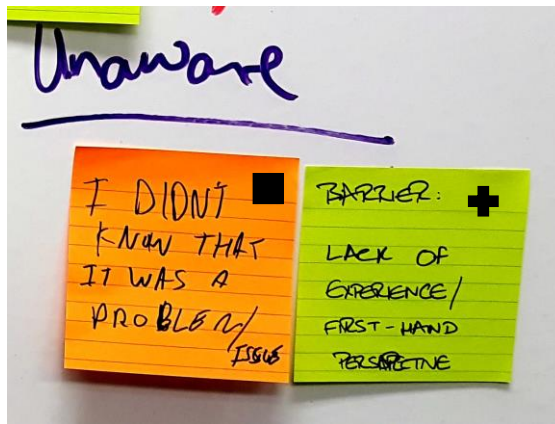
### **Top 5 challenges that male allies face in trying to support women in tech**

1. At the lowest level, there are men who are unaware there is an issue at all because there isn't enough transparency and dialogue around the differences and inequality.

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<sup>52</sup> Fairchild, C. (2016, November 3). Investors and startup founders think tech's diversity problem will solve itself. Retrieved November 9, 2016, from <https://www.linkedin.com/pulse/startup-founders-investors-think-techs-diversity-solve-fairchild>

Figure 14: Challenge and Discussion post-it notes for 'Unaware there is an issue at all'

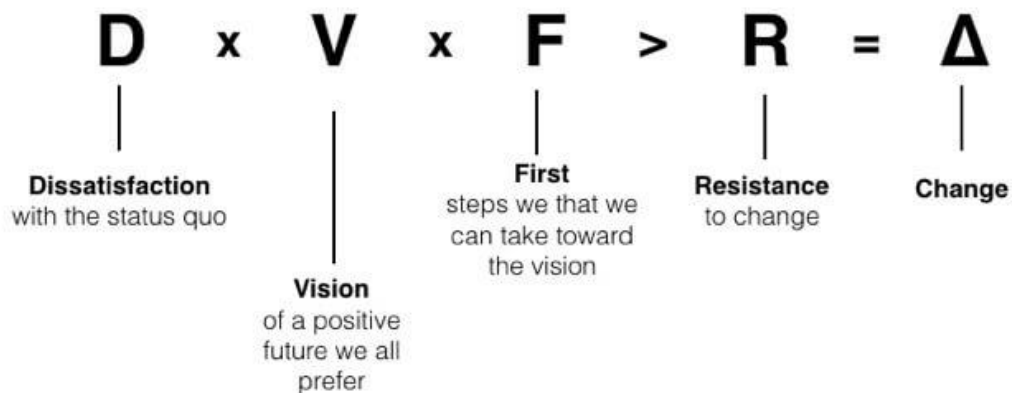


According to Dannemiller's change equation (Figure 15), in order to overcome the resistance to change (R), three elements must all be present. There must be dissatisfaction (D) of the current state, a vision (V)



of what the better future state is, and an understanding of what the first steps (F) are in getting to that vision.<sup>53</sup>

Figure 15: Dannemiller's change equation



Source: Dannemiller, K. D., & Jacobs, R. W. (1992). Changing the way organizations change: A revolution of common sense. *The Journal of Applied Behavioral Science*, 28(4), 480–498.

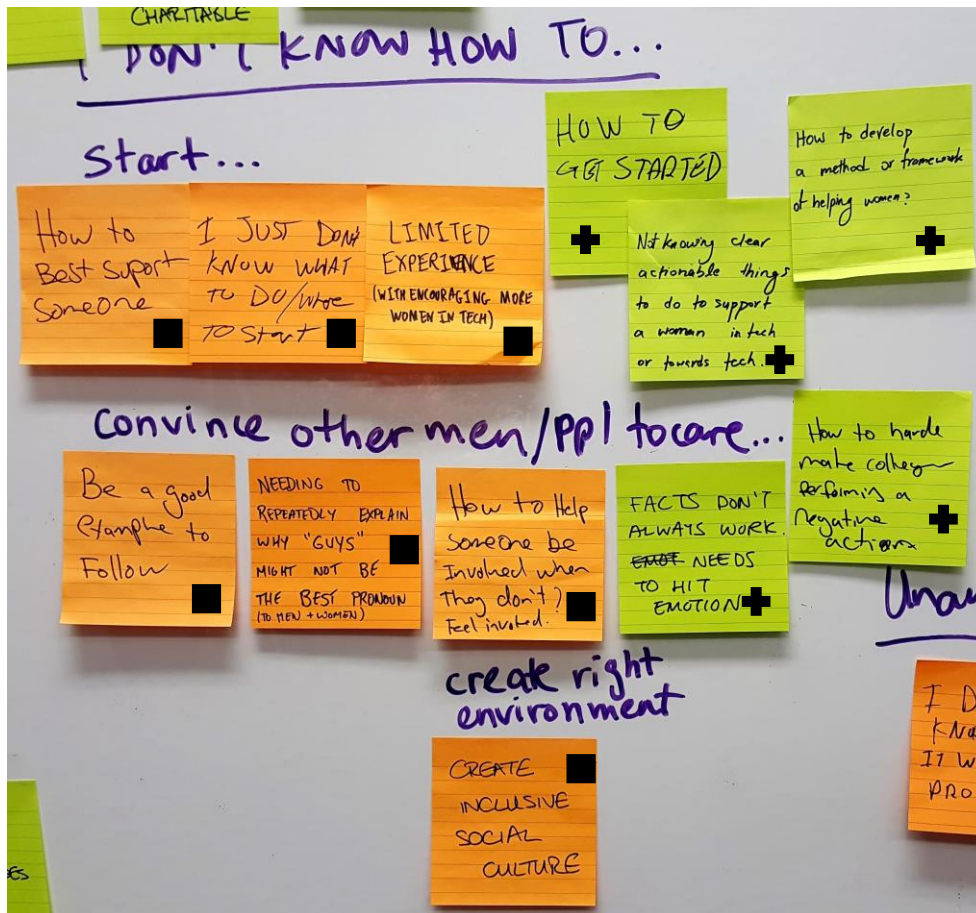
Without awareness you cannot create dissatisfaction. Michael Kimmel's TED Talk presentation talks about how privilege is invisible to those who have it and the first step in engaging men to support gender equality is to make gender visible to them.

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<sup>53</sup> Dannemiller, K. D., & Jacobs, R. W. (1992). Changing the way organizations change: A revolution of common sense. *The Journal of Applied Behavioral Science*, 28(4), 480–498.

2. When they become aware, they struggle with not knowing how to...
  - a. Start...
  - b. Convince other men/people to care
  - c. Create the right environment

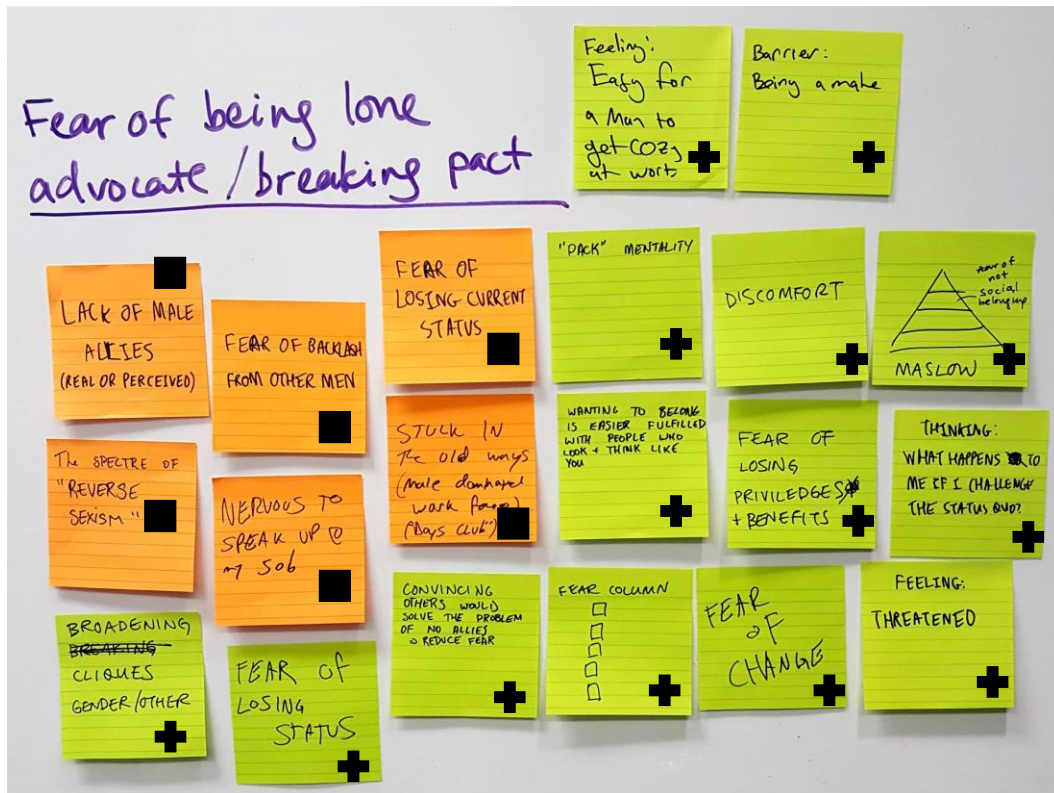
Figure 16: Challenge and Discussion post-it notes for 'Don't know how to...'



Building on Dannemiller's equation again, this challenge is linked to the lack of understanding of what those first steps (F) are towards the vision.

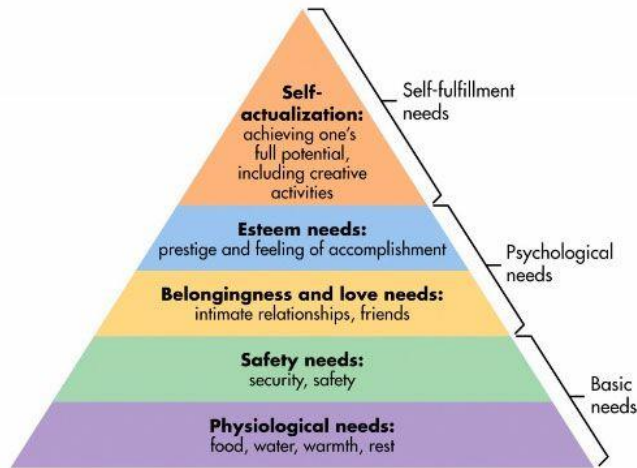
3. As advocates gain more awareness and knowledge of how they can help, they sometimes struggle to get over the fear of being the lone male advocate

Figure 17: Challenge and Discussion post-it notes for 'Struggle to get over the fear of being the lone male advocate'



They struggle with breaking from the pack and worry about backlash from other men. This speaks directly to Maslow's Hierarchy of Needs (Figure 18) where at the most basic level when physiological and safety needs are met, the next most important need is a sense of belonging. Speaking out against gender equality and potentially being the lone advocate puts them at risk of losing that belonging.

Figure 18: Maslow's hierarchy of needs



**Source:** Maslow, A. H. (1943). A theory of human motivation. *Psychological Review*, 50(4), 370.

4. Men also struggle with how to evaluate and treat men and women equally (meritocracy).

Figure 19: Challenge and Discussion post-it notes for 'Struggle with evaluating men and women equally'



Figure 19: Challenge and Discussion post-it notes for 'Struggle with evaluating men and women equally' (continued)

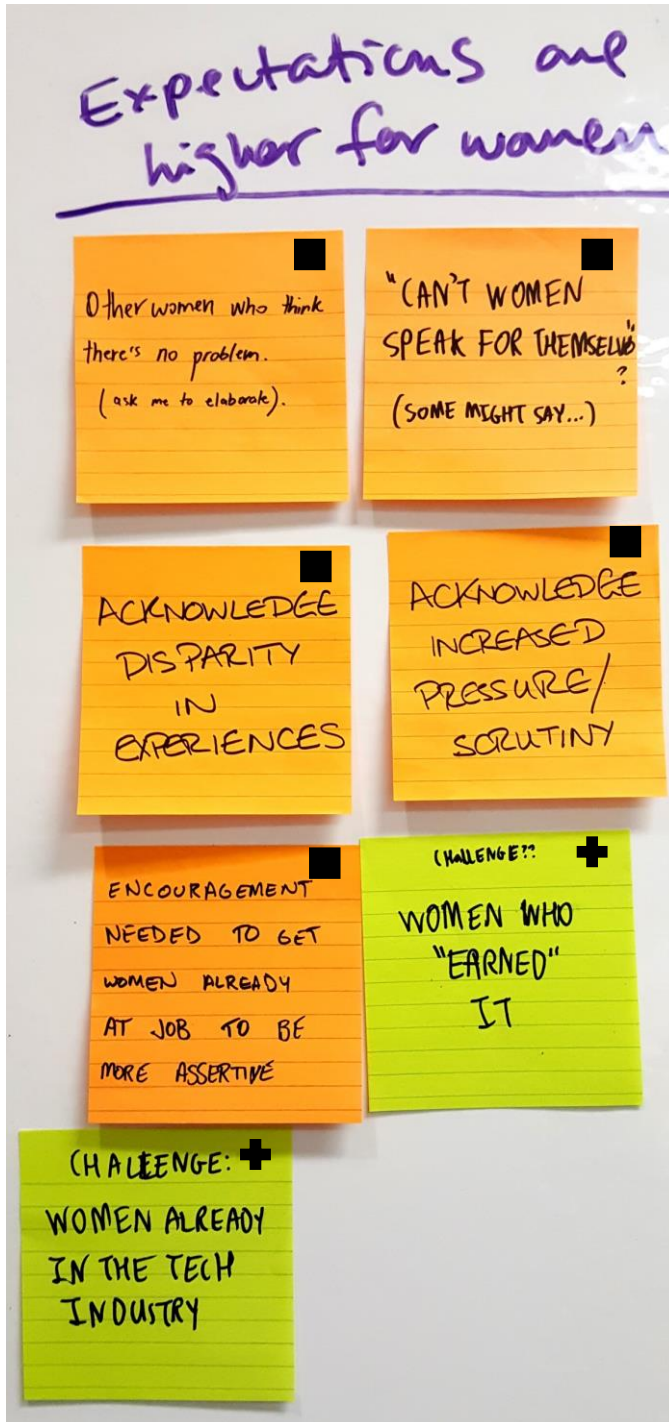




Figure 20: Challenge and Discussion post-it notes for 'Unconscious bias'

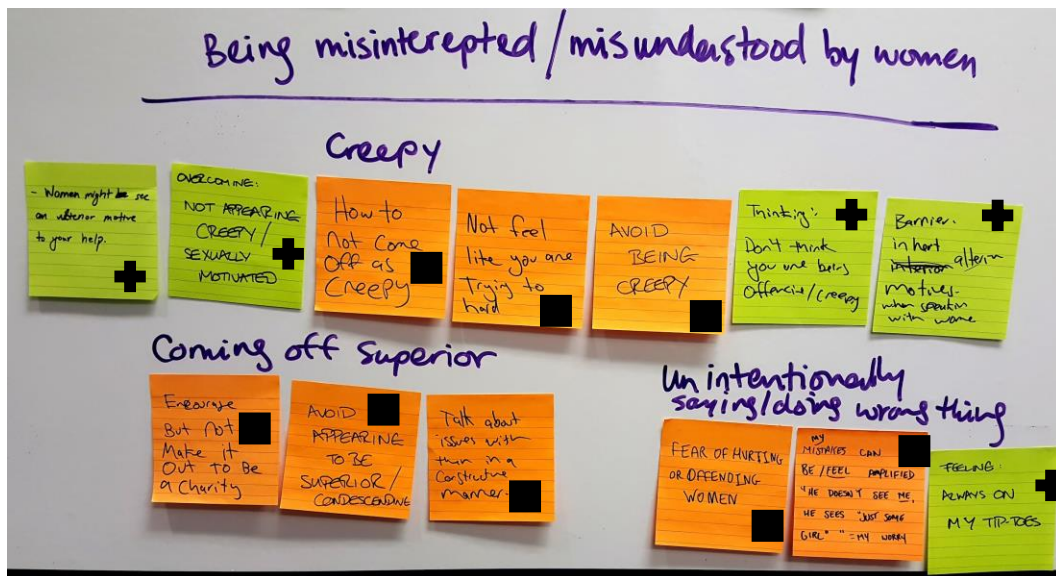


A lot of organizations struggle with the idea of “lowering the bar” to increase diversity vs meritocracy. Which already says so much about unconscious bias, since women’s code has a higher acceptance rate when gender is hidden.<sup>54</sup> Everyone grows up in their own cultures and environments and these experiences shape unconscious thoughts and understanding of gender norms. While the idea of evaluating people purely on merit is great in theory, how it’s done in real life is not as easy.

<sup>54</sup> Terrell, J., Kofink, A., Middleton, J., Rainear, C., Murphy-Hill, E., Parnin, C., & Stallings, J. (2016). Gender Differences and Bias in Open Source: Pull Request Acceptance of Women Versus Men. *PeerJ Preprints*, (e1733v2). Retrieved from <https://doi.org/10.7287/peerj.preprints.1733v2>

5. Fear of being misinterpreted/misunderstood by women
  - a. Fear of coming off creepy
  - b. Fear of coming off superior
  - c. Unintentionally saying or doing something offensive

Figure 21: Challenge and Discussion post-it notes for 'Fear of being misinterpreted/misunderstood by women'



This is one that almost all men I've spoken with formally and informally over the years seem to worry about.

## 5. OPPORTUNITIES FOR INNOVATION

*The “PinkTax” is a term used to refer to women being charged, on average, 43% more than men for the same goods and services. GirlTalkHQ teamed up with a local coffee shop in Toronto to raise awareness of the Pink Tax by charging women more for coffee and secretly filming it.*

*Men and women were outraged. One woman reminds the barista that, “Women earn less and pay more.”*

*The video ends with, “We’re not ok with paying more for coffee. Why are we ok with paying more for anything else?”*

*-- GirlTalkHQ<sup>55</sup>*

After generating the challenges men face in supporting women in tech, the male workshop participants contributed tips and resources to the themed challenges. To further identify opportunities for innovation, research on existing initiatives and resources for male allies was done to pinpoint challenges that lacked resources.

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<sup>55</sup> GirlTalkHQ. (2016, October 3). Fight the pink tax. Retrieved from <http://girtalkhq.com/fightpinktax/>



Table 10: Analysis legend to map existing resources to challenges.

Color code	Type of information
Blue or —	Existing initiatives Initiatives/resources that other organizations have created to help male advocates with this particular barrier
Pink or ◆	Tips, initiatives and resources suggested by workshop participants
Purple or ↑	Opportunities for innovation

1. Being unaware there is an issue at all because there isn't enough transparency and dialogue about differences and inequality

The first step to being proactive is recognizing that privilege is invisible to those who have privilege. It takes a conscious effort to educate yourself on how that privilege affects women and other minorities. One place to start is the Lean In Together website, <http://leanin.org/together/men>, where people can sign up for texts and/or emails with tips on how to be a male ally.<sup>56</sup>

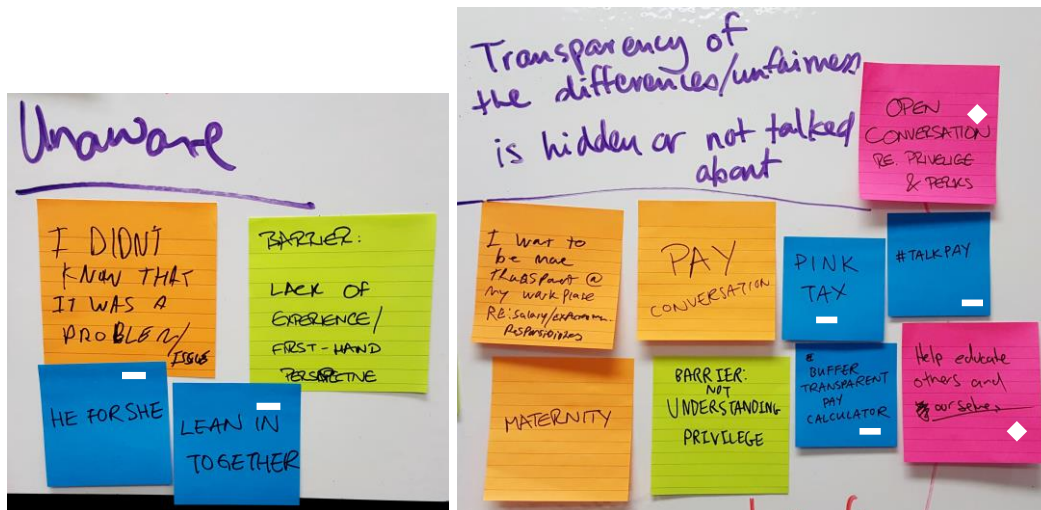
Some of the tips and resources generated for this challenge were:

- UN HeForShe: <http://www.heforshe.org>

<sup>56</sup> LeanInTogether. (n.d.). When men lean in for equality, everyone wins. Retrieved from <http://leanin.org/together/men>

- Ada Initiative Ally Skills Workshop: <https://adainitiative.org/continue-our-work/workshops-and-training/>
- Pink Tax: <http://www.girltalkhq.com/fightpinktax>
- PayScale Gender Pay Gap Report: <http://www.payscale.com/data-packages/gender-pay-gap>
- Twitter hashtags #TalkPay #EqualPay #GenderPayGap
- Buffer's Transparent pay calculator <https://buffer.com/salary>

Figure 22: Resources and Tips generated for 'Being unaware there is an issue at all'



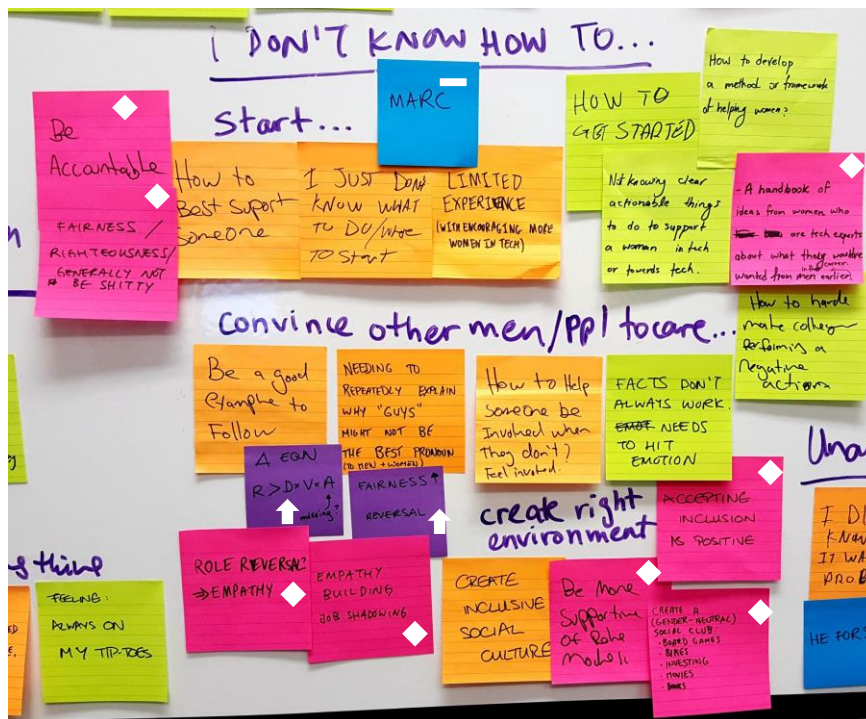
2. Don't know how to...
  - a. Start...
  - b. Convince other men/people to care
  - c. Create the right environment

Some of the tips and resources generated for this challenge were:

- Try role-reversal, empathy-building exercises
- A handbook of ideas from women who share what they would have wanted from men earlier in their careers
- Create social clubs that have gender-neutral activities such as board games, cycling, movies, and books.
- MARC (Men Advocating for Real Change) is an online resource that features many discussions and articles to educate. It also has a discussion forum where members can share challenges and stories, and can support each other with what's worked for them.

<http://onthemarc.org>

Figure 23: Resources and Tips generated for 'Don't know how to...'



### 3. Struggle to get over the fear of being the lone male advocate

Some of the tips and resources generated for this challenge were:

- Speak about gender equality issues in one-on-one settings, rather than large group settings that may be more intimidating, to try to identify other potential allies.
- Be aware of their own egos
- Develop conflict resolution skills
- Invite women out to group lunch or social outings
- Exposure therapy: the more you do it, the less scary something becomes
- Build confidence. One participant felt that Toastmasters helped him feel more articulate and able to think on the spot when speaking up against sexism. Other suggestions for confidence building activities include setting small achievable challenges for yourself to complete; reading and being well versed on gender equality issues to help you feel comfortable about talking to others about it.
- Set a good example for other men

Figure 24: Resources and Tips generated for 'Struggle to get over the fear of being the lone male advocate'



#### 4. Struggle with evaluating men and women equally (meritocracy).

The participants struggled with the fact that many men, and women for that matter, set higher expectations for women than men.

Some of the tips and resources generated for this challenge were:

- Unconscious bias education tools:

<https://rework.withgoogle.com/guides/?subject=5664248772427>

[776](#)

- Conducting coding tests where the interviewee's gender is hidden

- Textio: a website that analyzes your job description language to be more inclusive <https://textio.com/>

While there were some resources on how to reduce bias in recruiting and hiring, there were fewer concrete tools with guidance on how to judge men and women fairly and equitably when they are in the organization.

Figure 25: Resources and Tips generated for 'Struggle with evaluating men and women equally'





Figure 27: Resources and Tips generated for 'Struggle with evaluating men and women equally' (continued)



Figure 25: Resources and Tips generated for 'Struggle with evaluating men and women equally' (continued)





5. Fear of being misinterpreted/misunderstood by women
  - a. Fear of coming off creepy
  - b. Fear of coming off superior
  - c. Unintentionally saying or doing something offensive

Anecdotally, almost all the men with whom I have spoken talk about this barrier of feeling as if they are misunderstood by women. As discussed earlier in **Why are women leaving the tech industry? - Lack of sponsors and mentors** section, men are reluctant to have one-on-one meetings with junior women because they fear their actions or intentions will be misconstrued or interpreted as sexual harassment.

The group found it difficult to generate tips that were actionable for this challenge; the tips were very high level:

- Be clear about your intentions
- Set clear boundaries and guidelines

But these were some ideas found online<sup>57</sup>:

- Meet in public
- Make meetings routine
- Introduce significant others

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<sup>57</sup> Ashford, K. (2013, May 3). Are Men Afraid To Mentor Women? Retrieved from <http://www.forbes.com/sites/learnvest/2013/05/03/are-men-afraid-to-mentor-women/>

There is also a book called *Work With Me: The 8 Blind Spots Between Men and Women in Business* that points out that men and women respond to situations differently and communicate differently. For example, men turn away during a conversation to concentrate, while women focus on each other's eyes or when women list the challenges they face it is their way of alleviating stress and not complaining.<sup>58</sup>

Figure 26: Resources and Tips generated for 'Fear of being misinterpreted/misunderstood by women'



<sup>58</sup> Annis, B., & Gray, J. (2014). *Work with Me: The 8 Blind Spots Between Men and Women in Business*. New York: St. Martin's Griffin.

## TOOLKIT PROTOTYPE SURVEY RESULTS

The challenges, discussions, and ideas on how to overcome these challenges were then summarized on a flashcard (Figure 27 & Figure 28).

The card deck format was created for its “browsability” and to be easily digestible so that users could become more attuned to and identify with barriers they may not already be aware of.

The feedback on the effectiveness of the prototype toolkit varied:

- Participants did not find many opportunities to use the toolkit.
  - “Did you experience or witness any issues related to disadvantages of women in tech today?” 37.5% said yes.
- Response rate was very low and may be a sign that there were no opportunities to use the toolkit.
  - The percentage of participants who did not find opportunities is likely higher than 62.5%.
- Of the three instances where opportunities did present themselves, two of the three participants were able to use ideas from the toolkit.
- While the workshop was meant to create a toolkit for male allies, an unintended outcome of the workshop was that it raised awareness of all the attendees of the challenges both men and women face in trying to bring about gender equality.

Figure 27: Toolkit flashcards created from Workshop 1



Figure 28: Toolkit flashcards created from Workshop 2



## PLANS TO ROLL OUT THE TOOLKIT

There is an old saying, “Build a better mousetrap and the world will beat a path to your door.” This is a common misconception that if you have a good idea, people will find it. But sadly, that is not the case and many amazing ideas go unnoticed because there was not a plan to spread the word. In order to ensure the message of supporting male advocates and making sure the toolkit gets into the hands of men in tech, there are three stages to making this innovation a reality.

### *Phase 1: Expand the toolkit*

More workshops will be run to generate more tips and resources to address the challenges identified by men. There are two avenues in which to recruit participants. The first is to reach out to tech organizations, non-profits and associations in my immediate social network and run co-creation workshops: RL Solutions, Shopify, Facebook, University of Toronto, University of Waterloo, Google, Microsoft, HP, Intel, Lenovo, IBM, Women 2.0, DevTO, TechToronto, WeAreWearables and Hacking Health. The second is to apply to present this work at conferences such as Grace Hopper Celebration of Women in Computing, SXSW, and FITC (Future. Innovation. Technology. Creativity) and run workshops with men and women at the conference.

### *Phase 2: Make the toolkit as well as the workshop kit available*

Once the toolkit reaches 20 or so cards, the toolkit will be made available on the Tech Needs More Men website, <http://www.techneedsmoremen.com> for purchase (just enough to cover the printing cost) or as a free download.

Also, the guide (Appendix D) used to create and run these workshops can be shared with tech companies, universities, schools, or any group that

wants to better understand the barriers men face in their organizations so that they can run their own co-creating workshops.

### *Phase 3: Spread the word*

The next stage is to promote it. There are three main ways to promote the toolkit:

1. Reach out to tech company HR teams to let them know this resource is available. Marketing materials such as posters and email templates will be created to help them promote it to their employees.
2. Raise awareness of the problem and promote the toolkit by going back to the conferences and organizations listed in Phase 1 and applying to present. Other conferences that might be good avenues to promote this is TEDxToronto, Startup Grind, Fast Company's The Innovation Festival 2016, and HR conferences such as LinkedIn Talent Connect.

There are also a few tech conferences like CES and Social Good Tech where they have very minimal sessions on diversity but are still worth applying to speak.

## RECOMMENDATIONS FOR FUTURE

### RESEARCH

#### **Where the biggest opportunity for innovation lies**

The research approach of literature review, workshops, and feedback surveys helped to create the initial prototype toolkit covering six main themes under five main barriers. Two areas that emerged as barriers with few resources were:

- Fear of being misinterpreted/misunderstood by women
  - Fear of coming off creepy
  - Fear of coming off superior
  - Unintentionally saying or doing something offensive
- Struggle with evaluating men and women equally (meritocracy)

Conducting workshops specifically to flesh out ideas for these two barriers would be a great next step.

#### **Ask women to generate ideas for men to overcome these barriers**

Another area for further research is that while men have good intentions, sometimes their execution is poor. For example, in a Male Allies Workshop run by The Ada Initiative, they identify a scenario where a woman at a conference was sexually harassed. One of the suggested responses by men was to confront the harasser but the more accepted



appropriate response is to ask the woman if she'd like the harasser to be confronted.<sup>59</sup> One recommendation might be, instead of asking men to come up with tips and resources for other men facing the same challenges, a recommendation for future research may to take the same challenges that were generated by men and ask a group of women to suggest tips and resources on how they'd like men to act when faced these challenges.

### **Expand diversity of male ally perspective**

The participants in the research workshops were primarily white males, age 25-35 years old. Also, while there was representation from small to very large organizations, the sample size was small. Further research to include men from a more diverse ethnic background, age range, as well as continuing to recruit participants from all organizational sizes would be useful to ensure the challenges of men with different experiences are being represented. Diversity in the research participants would help to enrich the usefulness of the toolkit and make sure it's useful to a wider range of people.

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<sup>59</sup> Frame Shift Consulting/The Ada Initiative. (2016). *Focus on Allies: Diversity and Inclusion in Tech in 2016*. Retrieved from <https://www.youtube.com/watch?v=9dCzraKGUA4>

## 6. CONCLUSION

*Currently, the World Economic Forum predicts that it will take until 2133 to achieve global gender parity.*

*This is not good enough.*

*Equality is not just women's business; everyone – men and women – should be taking concrete steps to help achieve parity more quickly.*

*We will all be far better off once we do.*

*– Richard Branson, Founder of Virgin Group*

Gender equality is a complex problem. There are so many social, economic, cultural, and psychological drivers; but it boils down to fairness. The goal set out in this project was to help reduce the barriers men face in the hope that more men will get involved to improve gender equality in the technology sector.

Women were once the face of computing. Yet today they represent, on average, merely 10 – 20% of the technical positions at some of the largest technology companies in the world — even though women represent close to 40% of the students in STEM programs. Many factors drive women out of these professions; many of those factors have been noted here. There are many cultural and organizational initiatives focused on

empowering women in their quest for equality. The goal of this project was to reach men at the grassroots level. The goal was to create a toolkit of actionable tips and a library of resources to help men address specific challenges. The card deck format was created to be user-friendly so that men may become more attuned to and able to identify with barriers they may not have noticed.

In closing, there is no doubt that gender equality is a complex issue. There are myriad ways to debate whether gender inequality in tech is real and for every argument that it is, there is an argument that it isn't.

This project set out to understand what challenges men face in supporting gender equality within their technology organizations and how we might support men in improving gender equality within their technology organizations; many male allies feel paralyzed by the barriers they face. The hope is that this prototype toolkit with easy, actionable, and accessible ideas is a starting block to raise awareness and to mobilize men.

Ultimately, you cannot achieve gender equality for women without men.



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## APPENDICES

Appendix A: Gender equality toolkits for organizational change & Large scale initiatives

Appendix B: Research Ethics Board Approval

Appendix C: Consent form

Appendix D: Workshop Guide

Appendix E: Workshop invitations

Appendix F: Workshop slides

Appendix G: Post-workshop survey

Appendix H: Survey analysis

# APPENDIX A: GENDER EQUALITY TOOLKITS

## FOR ORGANIZATIONAL CHANGE & LARGE

### SCALE INITIATIVES

**B Team:** a not-for-profit initiative formed by a global group of business leaders to catalyze a better way of doing business, for the well-being of people and the planet

- The Diversity Paradox: Capturing The Value Of Difference By Looking Beyond The Numbers

<http://bteam.org/plan-b/the-diversity-paradox-capturing-the-value-of-difference-by-looking-beyond-the-numbers/>

**Catalyst:** the leading nonprofit organization with a mission to accelerate progress for women through workplace inclusion. We are dedicated to creating workplaces where employees representing every dimension of diversity can thrive.

- Engaging Men in Gender Initiatives: Stacking the Deck for Success

<http://www.catalyst.org/knowledge/engaging-men-gender-initiatives-stacking-deck-success>

- Engaging Men in Gender Initiatives: What Change Agents Need To Know

<http://www.catalyst.org/knowledge/engaging-men-gender-initiatives-what-change-agents-need-know>

**HeForShe:** a solidarity campaign for gender equality initiated by UN Women. Its goal is to engage men and boys as agents of change for the achievement of gender equality and women's rights, by encouraging them to take action against inequalities faced by women and girls.

- UN Women Solidarity Movement for Gender Equality Action Kit

<http://www.heforshe.org/en/action-kit>

**National Center for Women & Information Technology:** a non-profit organization chartered in 2004 by the National Science Foundation to increase the participation of girls and women in computing.

- Male Advocates and Allies: Promoting Gender Diversity in Technology Workplaces

<https://www.ncwit.org/resources/male-advocates-and-allies-promoting-gender-diversity-technology-workplaces>

## APPENDIX B: RESEARCH ETHICS BOARD

### APPROVAL

The OCAD University Research Ethics Board approved the research ethics considerations for research involving humans, for which the project was named “Toolkit for male advocates for gender equality in technology workplaces,” with the approval number 2016-01.

## APPENDIX C: CONSENT FORM

Date: September 15, 2016

Project Title: Co-creating a toolkit for male advocates for gender equality in technology workplaces

Principal Investigator:  
Pansy Lee  
OCAD University  
416 616 1981, pansy@pansylee.com

Faculty Supervisor (if applicable):  
Suzanne Stein  
Faculty of Strategic Foresight & Innovation  
OCAD University  
(416) 315-1896, sstein@faculty.ocad.ca

### INVITATION

You are invited to participate in a study that involves research. The purpose of this study is:  
To explore the challenges men face in trying to improve gender equality within their technology organization as well as work together to create a toolkit of resources to address those challenges.

There has been a flurry of activity around gender equality issues the last few years, particularly in the technology sector. Fast Company publishes two to three articles on this topic every week, Sheryl Sandberg wrote a book to encourage women to "Lean In" and there have been a string of discrimination lawsuits bringing this issue to the spotlight (Ellen Pao vs VC firm Kleiner Perkins, Tina Huang vs Twitter, Chia Hong against Facebook). However, it's not enough to just encourage women to "Lean In", we also need to mobilize men. If there wasn't a formal invitation for men to join the gender equality movement before, there certainly is one now with Sheryl Sandberg inviting men to #LeanInTogether, Emma Watson's UN speech and the UN Women's HeForShe initiative. Having said that, it's one thing to call them to the table, it's another to set them up for success.

### WHAT'S INVOLVED

Participation will take approximately 2 hours of your time.

As a participant, you will be asked to:

Discuss and post challenges you face as men who want to contribute to improving gender equality within your organization.

Work together to generate opportunities, ideas, resources, tools and responses to the posted challenges to be included in the toolkit.

### POTENTIAL BENEFITS AND RISKS

Possible benefits of participation include contributing to the gender equality movement as well as receive suggestions and responses to the challenges you may face as a male advocate for gender equality.

There also may be risks associated with participation.

While everyone will be reminded that opinions shared in the workshop may differ from their own but that this is a forum for safe discussion and we encourage participants to refrain from judgement and to be open minded and supportive as we are here together for a common goal.

A participant may feel self-conscious or embarrassed if he shares an experience or challenge that no one else faces.

They may also face social risks if they reveal aspects about their organizations that are unfavorable.

### CONFIDENTIALITY

All information you provide will be considered confidential and grouped with responses from other participants. Given the format of this session, we ask you to respect your fellow participants by keeping all information that identifies or could potentially identify a participant and/or his/her comments confidential.

Data collected during this study will be stored on a hard drive which will be locked in a key access drawer when not in use. Data will be kept for the duration of the project, approximately 4-8 months

after which time the data will be deleted from the hard drive. Access to this data will be restricted to Pansy Lee and Suzanne Stein.

#### VOLUNTARY PARTICIPATION

Participation in this study is voluntary. If you wish, you may decline to answer any questions or participate in any component of the study. Further, you may decide to withdraw from this study at any time, or to request withdrawal of your data (prior to data analysis approximately Oct 1, 2016), and you may do so without any penalty or loss of benefits to which you are entitled.

#### PUBLICATION OF RESULTS

Results of this study may be published in: reports, students' theses, and/or presentations to conferences and colloquia, physical and digital reports; summary of the research will be housed on a website ([www.techneedsmoremen.com](http://www.techneedsmoremen.com)). In any publication, data will be presented in aggregate forms. Quotations from interviews or surveys will not be attributed to you without your permission. Feedback about this study will be available from Pansy Lee through email ([pansy@pansylee.com](mailto:pansy@pansylee.com))

#### CONTACT INFORMATION AND ETHICS CLEARANCE

If you have any questions about this study or require further information, please contact the Principal Investigator (Pansy Lee) or the Faculty Supervisor (where applicable) (Suzanne Stein) using the contact information provided above. This study has been reviewed and received ethics clearance through the Research Ethics Board at OCAD University with the approval number 2016-01. If you have any comments or concerns, please contact the Research Ethics Office through [jburns@ocadu.ca](mailto:jburns@ocadu.ca).

#### ATTRIBUTION (OPTIONAL)

☐ Yes, I wish to be attributed for my contribution to this research study. You may publish my name in the "Thank you" portion of the report and toolkit.

☐ Yes, I consent to the use of my photo in the report, toolkit or toolkit promotional website.

#### CONSENT FORM

I agree to participate in this study described above. I have made this decision based on the information I have read in the Information-Consent Letter. I have had the opportunity to receive any additional details I wanted about the study and understand that I may ask questions in the future. I understand that I may withdraw this consent at any time.

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Thank you for your assistance in this project. Please keep a copy of this form for your records.

## APPENDIX D: WORKSHOP GUIDE

### Workshop Template

#### Tech needs more men (to care about gender equality)

#### Details

**Date:** Tuesday, January 19, 2016

**Time:** 6:30 PM to 9:00 PM (EST)

**Duration:** 2 hrs.

**Who:** [participants] Men who work in the technology sector

**Facilitators:** Pansy Lee

**Assistant Facilitators:** # needed and rationale  
N/A

**Other Support roles:** [list]

1 person - To assist with registration, signing REB, photography

#### **Notes on space:**

Giant blank wall to post topics

10 – 6-foot tables.

- 2 tables put together to make giant square table
- 5 “square” tables arranged around the room

Or small group have 2-3 people per 6-foot table

#### **Goals:**

- Generate list of challenges men face trying to support women in technology organizations
- List of potential ideas/initiatives, or responses to unsupportive comments made by others — both men and women — ranging from easy to hard.

#### **Agenda:**

10 min.	Welcome Overview of workshop	Welcome everyone, introduce myself and why I chose this topic. Go over the agenda for the workshop.
15 min.	Participant introductions	Participants introduce themselves. Share why they wanted to participate in this workshop.
10 min.	Generate challenges	Individually, each participant will generate a list of challenges they face in trying to support women in the tech industry. <ul style="list-style-type: none"><li>• On orange or ■ post-it notes</li><li>• One challenge per post-it note</li></ul>



15 min.	Reduction of topics	<p>Together they group similar challenges together to identify themes.</p> <ul style="list-style-type: none"> <li>• Workshop 1: Group their challenges together</li> <li>• Workshop 2: Combine their challenges with the challenges generated by the participants from Workshop 1</li> </ul>
5 mins	Bio Break	Anyone need a bio break? More drinks or snacks?
10 min.	Choose theme	<ul style="list-style-type: none"> <li>• Participants break into groups <ul style="list-style-type: none"> <li>○ Workshop 1: Two groups of two to three participants</li> <li>○ Workshop 2: One group of two participants</li> </ul> </li> <li>• Each group will pick a theme they want to work on. Take the themed challenges to their worksheet (Figure 8) and place it in the Challenges section.</li> </ul>
10 min.	Round 1: Break into groups for discussions	<ul style="list-style-type: none"> <li>• Groups will discuss the challenge they chose and make notes.</li> <li>• On green or + post-it notes in the Discussion Notes section</li> </ul>
10 min.	Generate ideas for toolkit	<ul style="list-style-type: none"> <li>• After coming to a good understanding of the challenge, the group will work on ideas that address the challenge.</li> <li>• On pink or ♦ post-it notes in the Ideas section</li> </ul>
5 mins	Pick another	Grab another cluster of challenges
20 min.	Round 2: Choose another theme Repeat discussion & idea generation	<ul style="list-style-type: none"> <li>• Participants choose another theme to discuss and ideate on. <ul style="list-style-type: none"> <li>○ 10 min. – Break into groups for discussions</li> <li>○ 10 min. – Generate ideas for toolkit</li> </ul> </li> </ul>
20 min.	Present back	<ul style="list-style-type: none"> <li>• Each discussion group will take turns presenting their challenge, discussion, and ideas. <ul style="list-style-type: none"> <li>○ Workshop 1: 5 min. x 4 Challenges, Discussion and Ideas to facilitator and other participants</li> <li>○ Workshop 2: 5 min. x 2 Challenges, Discussion and Ideas to facilitator</li> </ul> </li> </ul>

5 min.	Close Next steps	<p>Workshop 1 next steps:</p> <ul style="list-style-type: none"> <li>• Participants will receive the toolkit generated at the workshop.</li> <li>• The participants receive a series of surveys to gather feedback on the effectiveness of the toolkit.</li> <li>• The feedback is used to refine Workshop 2.</li> </ul> <p>Workshop 2 next steps:</p> <ul style="list-style-type: none"> <li>• Participants in Workshop 2 receive the toolkit but not the survey.</li> <li>• Based on the feedback that was received from Workshop 1, the instructions to the participants of Workshop 2 were to make sure the tips were actionable</li> </ul>
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**Total time: 2 hrs.**

### Inputs:

Things you need to bring into the workshop [handouts, PPT, etc.]

- Consent forms if they haven't done it online already.
- PowerPoint
  - o Goal
  - o Logistics overview
  - o Logistics slide for each part of the workshop so they know what's happening right now and what's coming up next
    - Incorporate countdown?
  - o Closing Slides
    - Thank you
    - Test in real world
    - Invite for follow-up interviews

### Supplies:

- Post it notes
- Sharpies
- Poster size Post Its

### Outputs:

- *Poster that will be turned into toolkit flashcard*

### Preparation notes:

- Create worksheet poster

Discussion	Challenge	Notes
Ideas		

## APPENDIX E: WORKSHOP INVITATIONS

**Date:** January 19, 2016

**Time:** 6:30 PM

- 6:30 - 7:00 PM – Dinner & registration
- 7:00 - 9:00p – Workshop

**Location:** HackerYou, 483 Queen Street W, 3rd Floor (Buzz 3333), Toronto, Ontario

**Why you?** I'm keen to hear your perspective as Ladies Learning Code male mentors because as men who work in tech and who contribute to organizations like LLC, you clearly feel it's important to support women in tech.

**The request:** In order to make progress, it's important to understand the challenges that men face in trying to support women in tech organizations. This workshop is to better understand the challenges and to work together on creating a toolkit to address those challenges. Reducing barriers will help more men to get involved.

**The context:** There has been a flurry of activity bringing gender equality issues to the forefront the last few years particularly in the technology sector. Fast Company publishes two to three articles on this topic every week, Sheryl Sandberg wrote a book to encourage women to “Lean In” and much of the focus has been on empowering women and highlighting their challenges. Very important for sure.

But, more recently, if there wasn't a formal invitation for men to join the gender equality movement before, there certainly is one now with Emma Watson's UN speech, Sheryl Sandberg inviting men to #LeanInTogether and the HeForShe initiative. Having said that, it's one thing to call men to the table, it's another to set them up for success.

**Date:** September 15, 2016

**Time:** 6:30 PM

- 6:30 - 7:00 PM – Dinner & registration
- 7:00 - 9:00p – Workshop

**Location:** OCAD University - S Lab, 205 Richmond St. W, 4th floor, Toronto, ON

**Why you?** I'm keen to hear your perspective as men who work in tech and the challenges you or your colleagues face in trying to support women in tech.

**The request:** In order to make progress, it's important to understand the challenges that men face in trying to support women in tech organizations. This workshop is to better understand the challenges and to work together on creating a toolkit to address those challenges. Reducing barriers will help more men to get involved.

**The context:** There has been a flurry of activity bringing gender equality issues to the forefront the last few years particularly in the technology sector. Fast Company publishes two to three articles on this topic every week, Sheryl Sandberg wrote a book to encourage women to “Lean In” and much of the focus has been on empowering women and highlighting their challenges. Very important for sure.

But, more recently, if there wasn't a formal invitation for men to join the gender equality movement before, there certainly is one now with Emma Watson's UN speech, Sheryl Sandberg inviting men to #LeanInTogether and the HeForShe initiative. Having said that, it's one thing to call men to the table, it's another to set them up for success.

## APPENDIX F: WORKSHOP SLIDES





A photograph of a desk setup. On the left, there is a potted plant in a dark jar. In the center, a laptop is open. To the right of the laptop, there is a pen and some papers. A lamp is visible in the background on the left. A light blue rectangular box is overlaid on the right side of the image.

Why?

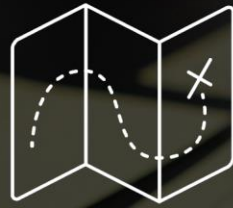
Because if we can empathize & break  
down those barriers we can  
encourage more men to get involved

A photograph of a wooden table. On the table, there is a brown leather bag, a glass of water, a smartphone, and a tablet. A person's hand is visible on the right side of the table. A light blue rectangular box is overlaid on the left side of the image.

Introduce  
yourself

& what encouraged you to  
come to this workshop?





## TODAY'S AGENDA

Challenges

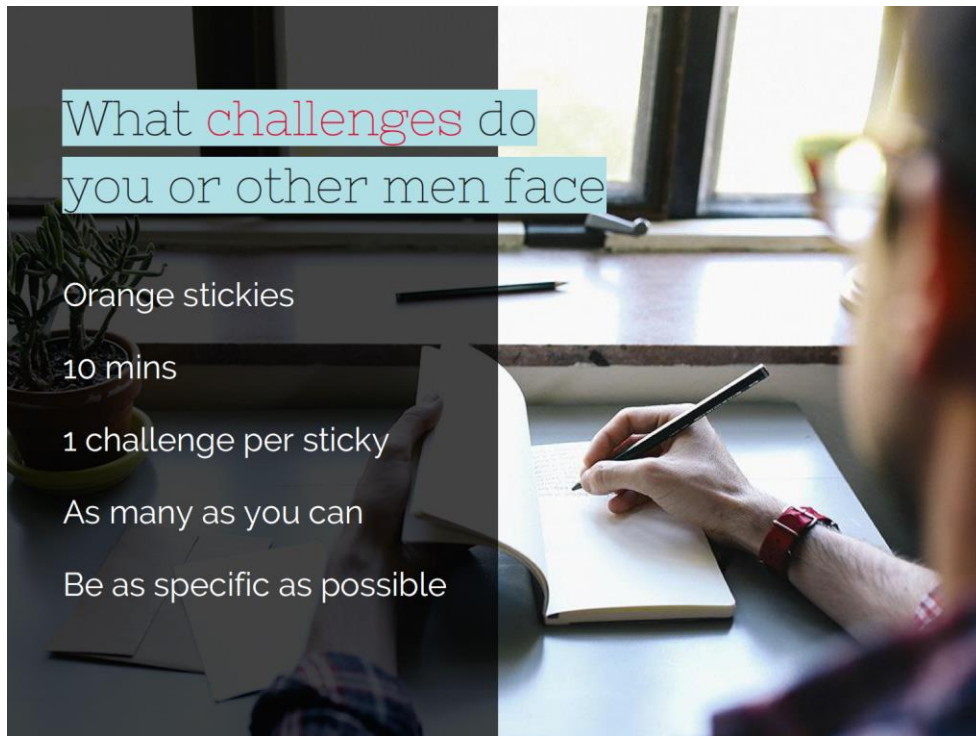
Discussion

Ideas

Share

} x 2

Any questions  
before we begin?



What challenges do  
you or other men face

Orange stickies

10 mins

1 challenge per sticky

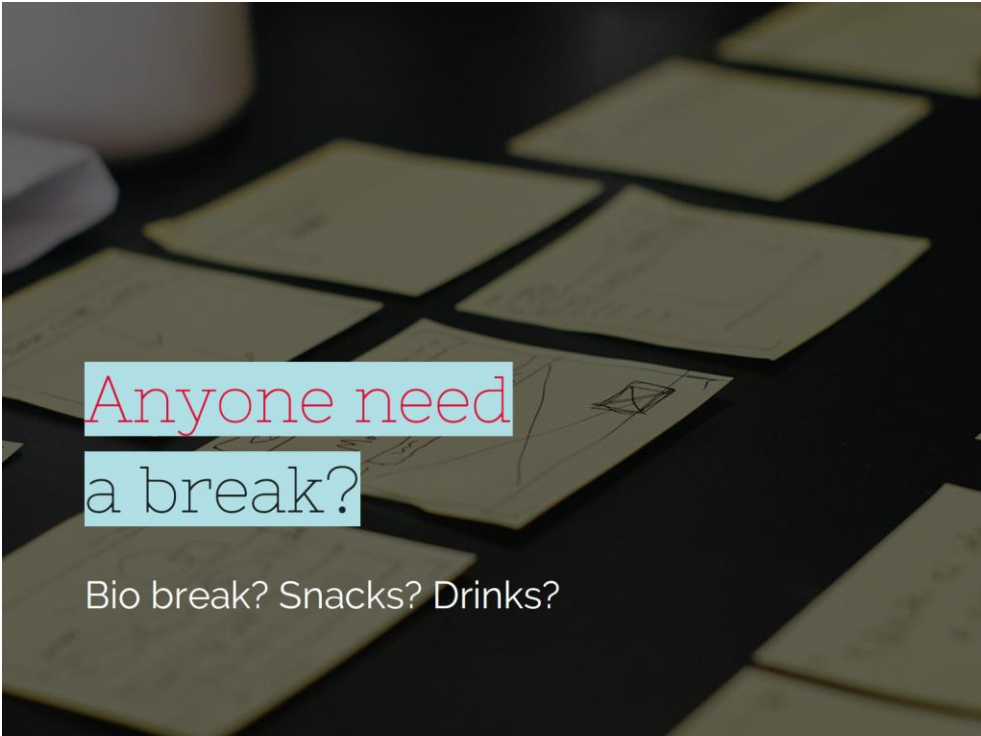
As many as you can

Be as specific as possible



Group similar  
themes together

15 mins



## Anyone need a break?

Bio break? Snacks? Drinks?



## Discuss the challenge

- © Green stickies
- © 10 mins

**What** is the challenge/barrier?

What might men be **thinking**?

What might men be **feeling**?

**Why** might men find this barrier hard to overcome?



## Ideas to address challenge

- © Pink stickies
- © 10 mins

**Potential** solutions / tools / responses

Prototype - **Draw** / Sketch

**Build** on each other's ideas

Different things will work for **different** people



Pick another  
challenge





## Discuss the challenge

- © Green stickies
- © 10 mins

**What** is the challenge/barrier?

What might men be **thinking**?

What might men be **feeling**?

**Why** might men find this barrier hard to overcome?



## Ideas to address challenge

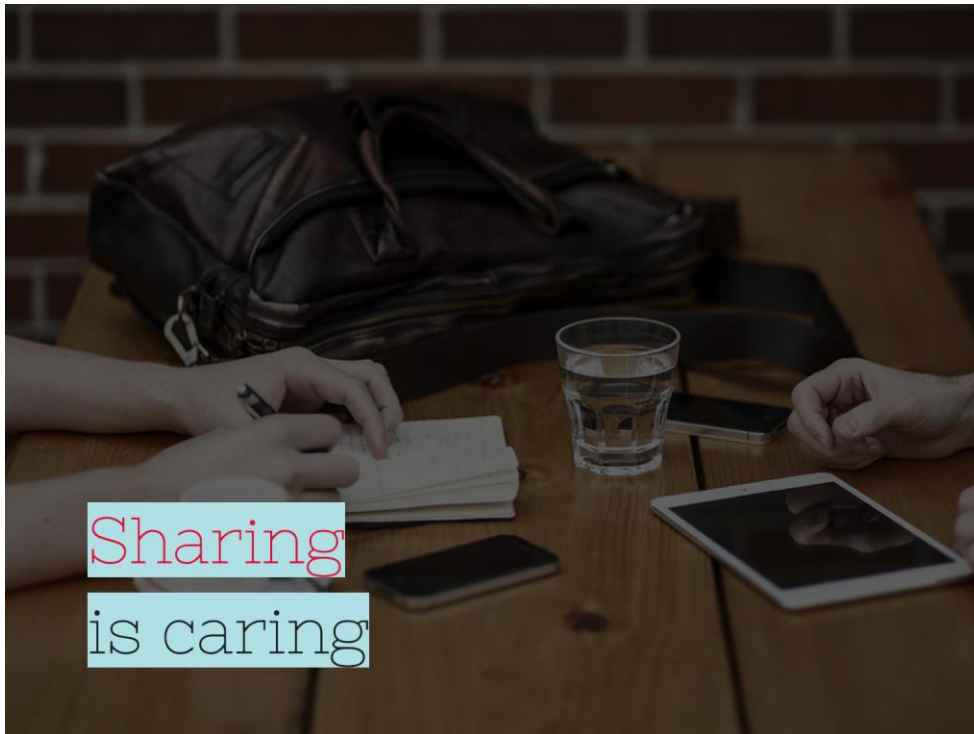
- © Pink stickies
- © 10 mins

**Potential** solutions / tools / responses

Prototype - **Draw** / Sketch

**Build** on each other's ideas

Different things will work for **different** people



Sharing  
is caring



thanks!

**ANY  
QUESTIONS?**

## APPENDIX G: POST-WORKSHOP SURVEY

10/6/2016	Toolkit feedback
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### Toolkit feedback

Ideas generated in brainstorm type workshops are sometimes hard to action on. Which is why your feedback on the toolkit in real life is so important.

Please be as honest as possible. If it was not useful at all, that's okay. It's really good for me to know.

**\*Required**

1. Did you experience or witness any issues related to disadvantages of women in tech today? \*

*Mark only one oval.*

☐ Yes *Skip to question 3.*

☐ No *Skip to question 2.*

**If no...**

2. Please elaborate on why you may not have experienced or witnessed any disadvantages of women in tech? \*

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

*Skip to question 9.*

**If yes...**

3. Please elaborate on what you experienced or witnessed \*

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

4. Did you experiment with any of the ideas created from the toolkit workshop? \*

*Mark only one oval.*

☐ Yes *Skip to question 7.*

☐ No *Skip to question 5.*

**Please elaborate...**

<https://docs.google.com/a/pansylee.com/forms/d/19nzSUU5MiqjGUgHNQmHLVppGM2QNCYQFle5yBHK4e8c/edit>

1/3

5. Please help me understand why you weren't able to use the ideas generated in the workshop. \*

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---

6. Any suggestions on what would be more useful if you are in the same situation again in the future? \*

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*Skip to question 9.*

**If yes...**

7. What ideas or approaches did you experiment with? \*

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8. What are some improvements that you'd suggest to make it a more useful and actionable toolkit? \*

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**In closing...**



10/6/2016

Toolkit feedback

**9. Do you have any further ideas/feedback for improving this toolkit?**

The more specific and more actionable your feedback is, the better.

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**10. Do you have any feedback on the workshop that was conducted if it were to be run again?**

Things you liked? Didn't like?

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**11. Any final thoughts / comments that didn't fit anywhere else?**

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Powered by  
 Google Forms

<https://docs.google.com/a/pansylee.com/forms/d/19nzSUU5MIqjGUghNQmHLVppGM2QNCYQFle5yBHK4e8c/edit>

3/3

## APPENDIX H: SURVEY ANALYSIS

	A	B	C	D	E	F	G
	Date	Did you experience or witness any issues related to disadvantages of women in tech today?		Do you have any further ideas/feedback for improving this toolkit?	Please elaborate on what you experienced or witnessed	Did you experiment with any of the ideas created from the toolkit workshop?	What ideas or approaches did you experiment with?
1							
2	2/18/2016	No		I like this idea of cards, being able to print off these cards is great. Since this is about women in tech, maybe having this info available on a website would be a good idea as well			
3	2/18/2016	No	▲				
4	2/21/2016	No	▲				
5	2/21/2016	Yes	★		I noticed that a co worker, who is pregnant, was subject to talk about her pregnancy in ways she seemingly did not want.	No	
6	2/22/2016	No	▲			●	
7	3/16/2016	Yes	★		A co worker is pregnant and I have noticed that people are starting to treat her differently, even though she still wants to do as much work as possible. They are sort of stepping in and seeing if she wants to do less, and making a bigger deal out of it then needed.	Yes	I decided to just keep treating them like I had before, offering them work and letting them proceed with doing the work they were doing.
8	3/17/2016	Yes	★		Women are not given the same treatment as men are when it comes to dealing with their ideas and personalities. I think that men in work my environment or class treat women as 'equals' insofar as they don't work with them directly or contribute to projects with them. I see men talk to women differently in terms of taking them seriously when it comes to women's ideas or treating them differently when it comes to collaborating with them for their own ideas. An example I've seen is that women are not included in discussions of 'hard' topics, not because men are actively excluding them, but they subconsciously think that it would be not fruitful to include women in those discussions.  I think this point can be summarised as this: I feel that men have a "dumb until proven smart" attitude towards men while they have a "smart until proven dumb" attitude towards other men.	Yes	The major challenge that I struggled with is the meritocracy one. I decided to actively start evaluating women and men differently when it comes to office life or tech expertise. I found when I kept an open mind, I would start seeing the benefits of having women in my team or working with women. I found that women are generally more open to ideas when you first discuss them with them rather than being negative or dismissive. It could be that the specific women I work with are like this, but I found that using this metric to evaluate people is really useful. Having teammates who help criticize or reinforce your ideas constructively is really invaluable.  I've also been interviewing candidates for my work and I try to evaluate the women and men differently in that I try to remove by biases when interviewing people. Typically with women I would ask the same interview questions, but act or explain it to them as if I'm infatigating them. I've actively watched myself now and try to be as neutral as possible. I also value communication and culture fit more in candidates, something women typically excel at.
9	3/17/2016	No	▲	The toolkit isn't bad by any means, but it seems to be geared towards larger (though important!) systemic challenges, which sometimes take a while to address. It's not clear how the toolkit can easily be applied to day-to-day challenges (as seemed to be suggested by the frequency of the surveys) – I sort of wish it included some guidance on the types of issues we (men) should look out for, not that I necessarily want to call out every such item but I'm not always sure myself what to look for and what could be considered unsupportive behaviour.			
10							
11							

H	I	J	K	L	M
What are some improvements that you'd suggest to make it a more useful and actionable toolkit?	Please elaborate on why you may not have experienced or witnessed any disadvantages of women in tech?	Please help me understand why you weren't able to use the ideas generated in the workshop.	Any suggestions on what would be a more useful if you are in the same situation again in the future?	Do you have any feedback on the workshop that was conducted if it were to be run again?	Any final thoughts / comments that didn't fit anywhere else?
	Being a teacher, I didn't notice and disadvantages today. ▲			I think it was good, I think trying to get more people involved would be nice. It was sad to see that so few people showed up. Maybe running it on the weekend might be better. People might be more willing to come and participate. ★	I liked the workshop! Shame more people didn't show up. If you wanted to run it again, I am pretty sure I could get a bunch of people from the HackerYou community come! ★
	Was preoccupied with own work for the most part ▲				I don't think I realized when signing up for the session that I was going to be asked to fill out seven different surveys. I definitely want to support an increased role for women in tech but I honestly don't see myself actively doing much with this toolkit in the immediate future. ●
	I think my environment, based on the people in it, does not have any outwardly obvious situations like this. I believe there are some, I just have trouble seeing them. ★				
		Since I was noticing it at a glance, and not involved, I couldn't think of what would have been the best approach. ★	I think I would be more involved in the situation if I noticed it in the future. ★		
	Since it was the weekend I didn't witness anything ▲				
I had to think about the things we talked about, maybe more memorable title for the cards might help? ▲					
I think that the act of discussing these topics and concepts with people was the most useful part and the toolkit was a good summary of those discussions. I think that if I had just received the toolkit without the real life interactions, it probably would be way less effective in shaping my thoughts about this issue. ★					I think that this project is quite valuable and I believe more men need to hear about these topics. I think you should improve your marketing! ★
	For the most part I was absorbed in my own work and/or working one-on-one with women directly. To the extent that I could observe other people's interactions, there was nothing of this nature that I recall observing. ▲			Aside from the small numbers (and it's difficult to know how what could have been done differently in that regard), I didn't have many issues. I definitely appreciated the attempts to mix up the groups a bit between discussions to get different mixes of opinions / personalities. ★	Nothing else at this time. Thanks!

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