

I'm Liji Gopalakrishnan, Director of the Memory Architecture research group at Rambus Labs. I've been working in the semiconductor industry for over 20 years, out of which 14 have been at Rambus in various roles. In addition to many conference publications, I have 13 issued patents and a few pending ones in the field of advanced memory interfaces. Founded in 1990 by Stanford professor Mark Horowitz and Mike Farmwald to commercialize their foundational inventions, Rambus is a company that values and promotes innovation. Since I've been fortunate to work with many brilliant inventors and engineers, I thought I'll share some of my experiences and ideas on how to improve the participation of women and minorities in the patent process.

On the personal side, I'm a family person with a teenage daughter who is a freshman at college. I came to this great country when my daughter was a baby, went through all the struggles of an immigrant, trying to adapt to the new culture, finding a job, getting a master's degree in electrical engineering while continuing to work to support my family. All this can be very difficult when you don't have any mentors or support structure around you, so I can identify with the struggles of many women out there. That is one of the reasons why I have been volunteering at hands-on STEM workshops facilitated by the 'Expanding Your Horizons' organization and serving as a judge at the Silicon Valley Science Fair for several years now.

Going through the suggested list of topics for speakers at this hearing, I saw a question on the social and private benefits of increased patent applications from minorities, women and veterans. To answer that question, I think it's important to first examine why innovation is important in general. From the age-old days when prehistoric man invented the wheel and hunting weapons, humanity has survived and flourished due to their brain power rather than muscle power. New ideas and approaches paved the way for the industrial revolution, semiconductors, internet and space technology, to name a few, and benefited all fields like medicine, agriculture, communication, transportation, entertainment and sports.

Now that we have touched upon the importance of innovation, the question becomes how to encourage more of it. The simple logical answer would be to get more people involved. Considering that women constitute about 50.8% of the population with only ~12% participation today, there is a big opportunity there. When we add minorities and veterans also into the mix, the number goes up. The goal is to get all sections of the population to contribute equally to solve problems and create a better life for everyone. A diverse set of inventors brings in different perspectives and thereby higher quality solutions.

When the goal is to bring parity to the innovation field, why do some groups like women and minorities need more help to get there? I cannot speak for all the sections, but at least for women, I can see multiple reasons:

#1) They face unique challenges like child care obligations and household responsibilities. I still remember the anxiety I felt while taking evening classes for my master's degree with my 7-year old waiting outside the classroom for her mom!

#2) Lack of information or exposure: Many girls don't get to hear about patent opportunities and what it takes to achieve that goal. Often, such topics don't come up in their conversations and this continues into adulthood.

#3) Perception of the society – Recently I was listening to a webinar by Rachel Mushahwar, SVP and GM at Intel and her funny experience when she attended a big Wall Street board meeting. The gentleman sitting next to her asked her to get him a cup of coffee, thinking she's an admin! We have a long way to go before society starts seeing men and women as equals in all fields.

#4) Lack of role models: This is another challenge when the current participation level of women is so low in the patent process. Up and coming young women don't get an opportunity to learn from role models and see live examples of how the innovation process unfolds. Even in my case, it was extremely hard to get started even while working at a company that encourages innovation and provides general training. When I became the only woman voting member of the memory patent approval committee in our company, I finally got the chance to see and learn from other inventors and that has been a tremendous help.

Finally, when we think about how to increase participation and thereby innovation, there is no question that we have to solve the above problems through training and other tools and spread awareness among women, minorities and veterans to empower them to contribute more. Providing volunteering platforms where role models can inspire, and mentor young talent is one possible approach. Collecting demographic info would help us measure progress and tweak programs to ensure success.

Ultimately, in my mind it's all about equal opportunity and equal contribution from all sections of the population towards the growth and development of our nation and this world. To that end, I wish the USPTO all success with the implementation of the SUCCESS Act.

intro

Professional

Personal

Why innovation is important

Medicine, agriculture, communication, transportation, entertainment, sports

How to encourage more innovation?

Get more people involved. 50.8% women. Get equal contributions

Why some groups like women and minorities may need more help?

Unique challenges

Lack of information or exposure

Perception of the society – Rachel Mushahwar

Role models and examples help

How to increase participation and thereby innovation?

Solve the above problems through training and necessary tools, spread awareness

Ultimately, it's all about equal opportunity and equal contribution from all sections of the population towards the growth and development of our nation and the world.