REVIEW OF DIVERSITY IN THE US TECHNOLOGY INDUSTRY

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Abstract

As social justice is trending, speaking out about diversity issues in technology companies has become commonplace. Claims are that the make up of those companies has too few females and other minorities. A significant amount of the technology industry is active on a social network called Twitter[1]. Many prominent users actively support diversity efforts, in order to give those of the female gender, differing sexual orientations, and racial minorities better work opportunities and working conditions. Likewise, Southern Connecticut State University is nurturing females in their Computer Science program which is comprised of ~10% women {citation needed}[2].

Claims of homogeny and ethnocentrism should remain uncertain, until the reader and I take objective views of the base demographics and equity in tech. First, to receive a more wholesome view, we must analyze the estimated gender and race populations of the United States. Looking at the country as a whole can help identify the scale of the problem. Then, we should take that perspective and narrow it until we reach the aforementioned tech industry. After having generated a fair understanding of how many people work or pursue a career in tech, we can begin to look at equality in hiring practices, compensation, and general employment opportunities. Further, if there are issues, we can propose recommendations for the industry.

Review of Diversity in the US Technology Industry

In order to inspect the tech industry's climate we need to acknowledge the complexity of demographics, diversity, and immigration. At best, data available on populations are estimates and projections. Race and ethnicity are complex subjects that require constant redefinition. And, in the end, what we can say amounts to generalizations. Considering the inception of large companies, the socioeconomic composition of startups, and the availability of tech education for minorities could provide a granular view. This paper opts for the broader option as its key take away is for companies approaching diversity complaints.

US EDUCATIONAL ATTAINMENT

...[country demographics]...

In 2015, of the American public, 1 in 3 held a Bachelors degree or better; half of the degrees were held by women (Bauman and Ryan, 2015). Compared to the amount of women working in tech { what is the amount? 10-30%? } we can prematurely raise a flag for gender inequality.

STEM GRADUATES IN THE US

Of those holding degrees in the areas of science, technology, engineering, and math (STEM) less than 50 percent held jobs in STEM fields (US Census Bureau, 2014)[3]. This statistic is a bit jarring as one would expect a higher percentage of STEM degree holders to work in STEM.

EQUITY IN TECH

THE PROBLEM With a base understanding of the demographics in tech we can assess if perceived fairness is the underlying cause of diversity issues.

WHERE THE PROBLEM LIES Diversity is a national concern. Hawaiian native Ronald Tanaki recounts an experience familiar among minorities in *Debating Diversity*, "When I arrived at Wooster [College]... white students would ask me: 'How long have you been in this country?' ... They did not see me as an 'American' (2002, p. 1)". Adding injury to insult, Dr. Tanaki claims his grandfather arrived in America during 1886, before many European immigrants did (2002 p. 1). Incorrect presumptions could qualify as stereotyping. For organizations this could lead to negative perceptions and bad work attitudes among individual employees.

Assuming the problem of under-hiring minorities and females lies in management or human resource departments we would look at how many individuals of the under-represented groups are available for hire and how many are being hired. As previously stated...

RECOMMENDATIONS In order to bridge the gap of diversity in tech, various groups[4] are attempting to bring the issue to light and to provide job opportunities. One such group concentrated on the diversity effort is Outreachy[5]. Using the platform of open source software, meaning not proprietary nor for profit, they allow under-represented groups to gain valuable experience working in the software industry. Many individual conference speakers promote diversity in the tech industry, and some take offense to the overall movement (Wakabayashi, 2017)[6].

Teams are expected to work well together, so recommending organizations to foster mutual adaptation can seem redundant. Redundancy might be what the group level needs. Initiatives that help the group appreciate individual differences can create a richer team culture.

Discussion

LIMITATIONS

Considering the exponential growth of the tech industry, part of the workforce holds a formal education less than a Bachelors degree {Citation needed? Can you get one?}. Adding to that group is the portion of those who go through fast paced learning programs in order to appeal to employers. It is also unclear if freelancing is a relevant portion of the overall tech industry. This review does not account for these groups. Also, the 2:1 ratio of STEM employees and STEM graduates may be caused by the very same diversity issues, pushing the under-represented groups away from careers they would otherwise desire.

LOOKING TO THE FUTURE

The US Census Bureau projects that Americans will be so diverse that there won't be racial minorities (Colby and Ortman, 2015).

References

Chenvert, R., and Hoffman, M. G. United States Census Bureau. (2017, October). Common pay patterns and extra earnings: 2013 (Report No. P70-BR-150) [PDF file]. Retrieved from https://www.census.gov/content/dam/Census/library/publications/2017/demo/p70br-150.pdf

Colby, S. L., and Ortman, J. M. United States Census Bureau. (2015, March). Projections of the size and composition of the U.S. population: 2014 to 2060 (Report No. P25-1143). Retrieved from https://www.census.gov/library/publications/2015/demo/p25-1143.html

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US Census Bureau. (2014). [Interactive graph Where do college graduates work? A Special Focus on Science, Technology, Engineering and Math]. 2012 American Community Survey. Retrieved from https://www.census.gov/dataviz/visualizations/stem/stem-html/

(Chenvert & Hoffman, 2017).
US census bureau (U.S. CB, 2015)

EXAMPLE FOR GRAPH THING

Graphic Data (e.g. Interactive Maps and Other Graphic Representations of Data)

- Give the name of the researching organization followed by the date.
- In brackets, provide a brief explanation of what type of data is there and in what form it appears.
- Finally, provide the project name and retrieval information.

Solar Radiation and Climate Experiment. (2007). [Graph illustration the SORCE Spectral Plot May 8, 2008]. Solar Spectral Data Access from the SIM, SOLSTICE, and XPS Instruments. Retrieved from http://lasp.colorado.edu/cgi-bin/ion-p?page=input_data_for_ spectra.ion

1. NOTE Mislove, A., Lehmann, S., Ahn, Y. Y., Onnela, J. P., & Rosenquist, J. N. (2011). Understanding the Demographics of Twitter Users. ICWSM, 11, 5th.
2. ADD Get link for SCSU women in tech
3. ADD https://www.census.gov/dataviz/visualizations/stem/stem-html/
4. NOTE https://techinclusion.co
5. ADD https://www.outreachy.org
6. ADD https://www.nytimes.com/2017/08/07/business/google-women-engineer-fired-memo.html