Literature Review References

1 Asfaw, A. (2020, August 16). Quantum Computing Education Must Reach a Diversity of Students. IBM Research Blog. https://www.ibm.com/blogs/research/2020/07/future-quantum-workforce/

2 Benioff, P. (1980). The computer as a physical system: A microscopic quantum mechanical Hamiltonian model of computers as represented by Turing machines. Journal of Statistical Physics, 22(5), 563–591. https://doi.org/10.1007/bf01011339

3 Bostwick, V., & Weinberg, B. (2021). Nevertheless She Persisted? Gender Peer Effects in Doctoral STEM Programs. Journal of Labor Economics. Published. https://doi.org/10.1086/714921

4 Cheryan, S., Ziegler, S. A., Montoya, A. K., & Jiang, L. (2017). Why are some STEM fields more gender balanced than others? Psychological Bulletin, 143(1), 1–35. https://doi.org/10.1037/bul0000052

5 Converso, L. G. (2020, November 9). How to build a quantum computing workforce. Accenture. https://www.accenture.com/us-en/blogs/accenture-research/how-to-build-a-quantum-computing-workforce

6 Dilmegani, C. (2021, January 1). Quantum Artificial Intelligence in 2021: in-Depth Guide. AIMultiple. https://research.aimultiple.com/quantum-ai/

7 Drury, B. J., Siy, J. O., & Cheryan, S. (2011). When Do Female Role Models Benefit Women? The Importance of Differentiating Recruitment From Retention in STEM. Psychological Inquiry, 22(4), 265–269. https://doi.org/10.1080/1047840x.2011.620935

8 Ghose, S. (2020, September 21). Are You Ready for the Quantum Computing Revolution? Harvard Business Review. https://hbr.org/2020/09/are-you-ready-for-the-quantum-computing-revolution

9 Giles, M. (2020, April 2). Explainer: What is a quantum computer? MIT Technology Review. https://www.technologyreview.com/2019/01/29/66141/what-is-quantum-computing/

10 Hailu, R. (2019, July 24). Fitbits, other wearables may not accurately track heart rates in people of color. STAT. https://www.statnews.com/2019/07/24/fitbit-accuracy-dark-skin/

12 Hazari, Z., Chari, D., Potvin, G., & Brewe, E. (2020). The context dependence of physics identity: Examining the role of performance/competence, recognition, interest, and sense of belonging for lower and upper female physics undergraduates. Journal of Research in Science Teaching, 57(10), 1583–1607. https://doi.org/10.1002/tea.21644

14 IBM. (2020). Exploring quantum computing use cases for healthcare. https://www.ibm.com/thought-leadership/institute-business-value/report/quantum-healthcare

16 Johnson, D. (2020, July 30). Building a Quantum Computing Workforce from the Ground Up. IEEE Spectrum: Technology, Engineering, and Science News. https://spectrum.ieee.org/nanoclast/at-work/education/building-a-quantum-computing-workforce-from-the-ground-up

18 Kalender, Z. Y., Marshman, E., Schunn, C. D., Nokes-Malach, T. J., & Singh, C. (2019). Why female science, technology, engineering, and mathematics majors do not identify with physics: They do not think others see them that way. Physical Review Physics Education Research, 15(2). https://doi.org/10.1103/physrevphyseducres.15.020148

20 Kay, K., & Shipman, C. (2015, August 27). The Confidence Gap. The Atlantic. https://www.theatlantic.com/magazine/archive/2014/05/the-confidence-gap/359815/

22 Leddy, C. (2019, January 23). Q&A: The talent shortage in quantum computing. MIT News | Massachusetts Institute of Technology. https://news.mit.edu/2019/mit-william-oliver-qanda-talent-shortage-quantum-computing-0123

24 Marshman, E., Kalender, Z. Y., Schunn, C., Nokes-Malach, T., & Singh, C. (2018). A longitudinal analysis of students' motivational characteristics in introductory physics courses: Gender differences. Canadian Journal of Physics, 96(4), 391–405. https://doi.org/10.1139/cjp-2017-0185

11 Marshman, E. M., Kalender, Z. Y., Nokes-Malach, T., Schunn, C., & Singh, C. (2018). Female students with A's have similar physics self-efficacy as male students with C's in introductory courses: A cause for alarm? Physical Review Physics Education Research, 14(2), 020123–1-020123–17. https://doi.org/10.1103/physrevphyseducres.14.020123

13 Microsoft. (2020, February 28). Quantum Impact: Teaching the next generation of quantum (Ep. 2) [Video]. YouTube. https://www.youtube.com/watch?v=xivcAE4GGWc

15 O'Brien, J. (2019, December 17). How quantum computing could beat climate change. World Economic Forum. https://www.weforum.org/agenda/2019/12/quantum-computing-applications-climate-change/

17 Qiskit. (2020, July 31). We Asked Experts Their Advice for Getting a Job in Quantum Computing. Medium. https://medium.com/qiskit/we-asked-experts-their-advice-for-getting-a-job-in-quantum-computing-2f55e9785a6b

19 Qiskit. (2021, March 11). How Do You Teach Quantum Computing to High Schoolers? Medium. https://medium.com/qiskit/how-do-you-teach-quantum-computing-to-high-schoolers-2f269495abb4

21 Shein, E. (2020, November 18). A more quantum-literate workforce is needed. TechRepublic. https://www.techrepublic.com/article/a-more-quantum-literate-workforce-is-needed/

23 Sheridan, S. (2020, February 3). Women in Quantum Technologies - What are the challenges? COST. https://www.cost.eu/news/general/women-in-quantum-technologies-what-are-the-challenges/

25 Singh, C. (2008). Student understanding of quantum mechanics at the beginning of graduate instruction. American Journal of Physics, 76(3), 277–287. https://doi.org/10.1119/1.2825387

REFERENCES

26 Singh, C. (2021, January 13). The Quantum Computer Revolution Must Include Women. Scientific American. https://www.scientificamerican.com/article/the-quantum-computer-revolution-must-include-women/

27 Toon, J. (2019, October 14). Diversity May Be Key to Reducing Errors in Quantum Computing. Georgia Tech Research Horizons. https://rh.gatech.edu/news/627571/diversity-may-be-key-reducing-errors-quantum-computing

28 Uhlig, R. P., Dey, P. P., Jawad, S., Sinha, B. R., & Amin, M. (2019). Generating Student Interest in Quantum Computing. 2019 IEEE Frontiers in Education Conference (FIE). Published. https://doi.org/10.1109/fie43999.2019.9028378