



UNIVERSITY OF TORONTO

THE EFFECTS OF COVID-19 ON THE WORKPLACE ENVIRONMENT

EXECUTIVE SUMMARY

TEAM 1



APS1018

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The workplace environment is a constantly evolving ecosystem [1] [2]. In the 1950s, the original office layout was inspired by factories and production lines. Since then, there have been numerous improvements in fluidity, comfort, and efficiency in the office for employees; however, these improvements have often stayed on the office floor. In the past decade, the workplace has become increasingly more mobile with the rapid advancement of processing power and the subsequent reduction in size requirements [3]. However, this technological progression has not been matched with a cultural shift as even now, employees working in established industries such as construction and oil and gas have been grandfathered into working standard office hours and maintaining physical presence in the office. In the past two years, the COVID-19 pandemic has resulted in a drastic, unprecedented shift in the modern workplace environment. In this project, the team analyzed this shift and its impacts on the workplace structure and productivity and the people that work there. The significance of undertaking this project in APS1018 was to understand both positive and negative implications of “a new normal” in a large aspect of our lives. The average person will spend 90,000 hours at work – this is a third of a lifetime and we as engineers of society must ensure that we understand the consequences and control the direction that the future of the workplace is headed towards instead of leaving it in the hands of mega-corporations who act against the best interests of the working people [4].

The objective of this project was to gain insight into how companies are currently responding to the COVID-19 pandemic within their workplaces and which, if any of these, changes are expected to have long-lasting effects in the way that work is conducted. The scope of this project did not include a historical look into the workplace before the pandemic and it will be assumed that the reader will bring in their own work experience as supplementary knowledge. However, where applicable, context is provided to highlight the significance of deviation in the workplace due to COVID-19. The approach was to investigate the immediate responses to the challenges brought about by the pandemic in the workplace for the progress report and to use those findings to determine the chronic symptoms remaining in the workplace post-pandemic for the final report as well as provide a framework for companies to design their workplace environment to successfully navigate the requirements of the evolving workforce. In this report, the effects of COVID-19 on the workplace environment are summarized into three different categories. The first category covers general trends affecting the workplace as a result of the pandemic including areas of unemployment, hiring practices, mobility, and privacy. The second category looks at how companies are responding to the challenges within their workplace including action plans, work restructuring, and restrictions – engineering examples will be provided and examined. The third category looks at the shift in social dynamics in the workplace including physical and mental health, inclusivity, diversity, and visibility. Each of these categories was primarily led by one of the three team members. To conclude, the impacts on innovation were appended at the request of Professor Armstrong to provide a counterbalance for the optimistic outlook of the future of the work environment illustrated throughout this report by its three engineering authors.