TEAM 1 – ARTIFICIAL INTELLIGENCE IN HEALTH CARE – EXECUTIVE SUMMARY

Similar to any other industry, the healthcare system is trying to cut down costs and improve its efficiency and throughput with minimal sacrifice of quality. Artificial intelligence (AI) and automation of manual tasks are effective strategies to improve the budget constraints and efficiency problems.

Artificial intelligence in the health care industry has been around for some time now, although some risk exists when applying AI in health care, the future seems even brighter. New applications and software might make healthcare more accessible and affordable to people. Routine tasks could be done faster and more accurately. As a result, a series of health care occupations will be disrupted when new technologies are introduced to the system. This process will not completely eliminate humans, but requires the paradigms of occupations to be modified to adapt to such changes, embrace them and focus on developing and improving the skills that cannot be emulated by artificial intelligence.

In this report, the applications of artificial intelligence are discussed by presenting its various applications in the healthcare industry, particularly in the areas of diagnosis, laboratory, surgery, imaging and mental health, where most of the breakthroughs are likely to happen in the future. The research shows that AI will help to make the work of physicians in these areas more accurate and fast, improving productivity and helping patients get higher quality services. In the future, the adoption of AI is going to be a need, with healthcare costs increasing as well as an aging population, AI will allow to improve coverage of services at lower costs and these advantages would likely to beat the current resistance is facing by healthcare authorities.

Healthcare related occupations will be disrupted but in the same way than in other industries; healthcare professionals would be forced to be tech savvy, as well as have a higher level of specialization and human skills, that would in the end, make a difference of working with fully automated systems. Occupations with lower specialization levels and technical positions are the ones most likely to completely disappear in the next 20 years.

The recommendation of this paper is to adopt AI technologies whose accuracy and effectiveness can be properly validated and proven to be better than human labor, and also the regulations and laws are well established to handle with the possible ethical and accountability issues that having a system based in AI would bring.