Blurring the Lines Between Healthcare and Tech

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One of the largest and most powerful trends in North America today is the aging population. By 2030, all of the baby boomers will have reached age 65+, and this demographic will make up 20% of the overall US population. It should come as no surprise that as the population mix has shifted towards higher age brackets, healthcare spending has risen as well. Projections from the US Centers for Medicare and Medicaid Services are for healthcare to make up just under 20% of total spending in the US economy, some $5.7 trillion, by 2026.

As is usually the case in areas with such an attractive secular growth profile, healthcare has seen significant levels of investment, and this has resulted in some of the most exciting and potentially most impactful innovations to be found in any industry. Continue reading for a brief look at some of Di Iorio Wealth Management's favourite healthcare technology trends:

Virtual Reality and Augmented Reality

Virtual reality and augmented reality are two topics which we have written about on multiple occasions. Relating these emerging technologies specifically to the healthcare sector is not difficult, and many companies are already beginning to explore this potential. The main areas in which we have seen an impact being made are in the educational sphere (ex. training new medical professionals in a simulated environment), in psychology (ex. treating phobias, depression, PTSD), in rehabilitation (ex. exercise regimes, brain stimulation), and in entertainment/relaxation (ex. gaming, meditation). The technology will only continue to become more developed and accessible over time, and we expect the range of uses will continue to grow along with it.

Wearable Technology and Sensors

Wearable tech is one of the most obvious health trends that can be seen in society today. Major technology companies, as well as some newer players, are all making pushes to enter the space and become leaders in it. Tracking things like activity, sleep, heart rate, hydration, and nutrition with the help of wearable technology has become common practice today with popular fitness trackers. More specialized applications in the space have also begun to emerge to help individuals with conditions like diabetes track their glucose levels, to monitor blood pressure, or even to track blood alcohol content. The volume of information that is being gathered by this technology is a data-goldmine for the healthcare industry, with inroads already being made to allow certain data to be automatically shared with healthcare providers so that conditions can be monitored and treatments altered accordingly.

Virtual Healthcare

Virtual Healthcare (aka Telehealth) is a trend which has been emerging for a few years, but has picked up even more momentum recently. The main idea behind the service is to provide fast, efficient, and patient-centered healthcare services virtually via audio and video conferencing. Leveraging this technology can help to address all kinds of issues that have plagued the medical industry for years, including: reducing waiting times, increased access to specialists, continuity of care across medical professionals, and extending healthcare access to remote areas.

Robotics

Robotics is another field which has vast implications for the healthcare industry. One such application which has probably received the most attention is the use of robotics in surgery, where increased precision has the potential to greatly improve the outcomes and efficiency of existing surgical procedures. In addition to surgery, robotics in healthcare has a wide-range of potential use-cases, including: robotic-assistance reducing the workload on nurses, exoskeletons providing mobility or rehabilitation, and microscopic robots being used to deliver drugs directly into the bloodstream.

Artificial Intelligence

Artificial Intelligence, in our view, is probably the most exciting and revolutionary development in nearly all the industries it is being applied towards. The topic of AI is one that is of particular interest to us, as Montreal has emerged as one of the major hubs of AI research and development worldwide, perhaps best illustrated by investments made by Google, Microsoft, and others in the Montreal Institute for Learning Algorithms (MILA). The potential benefits of AI in the medical field are massive, and it is potentially the most impactful of all the trends mentioned here. It would be impossible to explore all of the potential ways in which AI could impact the healthcare sector in one post, but some of the most prevalent are big data, treatment design, and diagnostics. Big data can be viewed as the basis of AI and machine learning, as the capacity of an AI to analyze and “learn” from massive amounts of data far exceeds that of a human being. This ability to analyze and parse extreme volumes of data will not only allow AI to suggest and implement efficiency enhancements into the healthcare system, but will also allow it to create more efficient treatments for patients (based on data taken from millions of others). In addition, the ability to use machine-learning when it comes to diagnosis has far-reaching applications, such as using AI to analyze inputs from medical imaging or other tests, while leveraging massive amounts of data drawn from other cases and outcomes in order to make more accurate diagnoses.

In this post, we have only reviewed a few of many exciting areas of innovation in the healthcare sector, and only a fraction of the applications each of these could have. As investors, the potential opportunities in the space are massive. If you would like to find out more about how our portfolios are positioned to benefit from some of these trends feel free to contact us anytime. Finally, an excellent resource for learning more about these and other trends related to the future of medicine is the Medical Futurist Institute website which can be found at the link below:

http://medicalfuturist.com

Thanks for reading!

Sincerely,
Di Iorio Family Wealth