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## What is the Future for the "Internet of Things"? By Travis Mitchell, J.D. Candidate 2019 | November 28, 2016

One of the hottest topics in technology over the past year has been the emergence and growth of the supposed "Internet of Things" (IoT). It has been the subject of articles within technology and business circles for quite some time, but has yet to make a dent in the popular zeitgeist. What is the Internet of Things and what are the potential benefits and risks?

The Internet of Things broadly refers to a future in which every electronic device is connected to the internet and can communicate with other devices. An example of how quickly technology such as this can impact the market is the advent of the smartphone. Once thought to be as futuristic as the still unrealized flying car, smartphones have now permeated the market with the number of users projected to reach 2.87 billion by 2020 (almost doubling that of 2014). This growth is fueling excitement over IoT and its potential impact, with some estimates as high as 100 billion connected devices by 2020. Others are looking beyond simply connecting devices and toward a future where every object in our lives, from streets to buildings, are connected to the internet and can thus continuously improve performance via data tracking and adaptive technology.

IoT opens up a whole new world of opportunity and potential pitfalls for information technology and data storage. For the average person, one can imagine a world where the devices she encounters throughout her day are all constantly working to improve effectiveness and make the day run as seamlessly as possible. Everything from a smartwatch determining the best time to awake her without disturbing her circadian rhythm to a connected coffee pot brewing itself to smart streets diverting traffic and telling cars to slow down on a rainy day. The possibilities truly are endless. However, many scholars have already begun to <u>express concerns</u> about, and problem solve around, who has access to all of this data and how it will be stored.

Although the upper limit of IoT are likely outside our collective imagination, many are clearly seeing the economic benefits of getting in on the proverbial ground floor. Just cursory engagement with key connected technologies has <u>paid dividends</u> for many companies. Harley Davidson was able to increase productivity by 80% and profits by 4%. Cisco reduced energy consumption by 20%. Global companies have been taking notice and acting upon it. Samsung, recovering from the Galaxy Note 7 debacle, recently began negotiations on the largest foreign purchase in South Korean history with an \$8-billion-dollar buyout of internet-connected car maker Harman International Industries. Samsung is thought to be using the purchase to establish in-roads in the IoT market.

Smart investors will be looking to the Internet of Things as an important emerging market over the next few years and it would behoove smart consumers to think critically about its likely implications.