Trends in Technological Developments

Debashis Jena

University of Maryland University College

**MEMORANDUM**

TO: [First Name and Last Name]

FROM: Debashis Jena

DATE: September 25, 2019

SUBJECT: Trends in the Technological Developments

**Introduction**

The market analysts use the word “FAANG” very commonly in the recent times. FAANG is the acronym for Facebook-Amazon-Apple-Netflix-Google. Undoubtedly, they are the leading companies in the market; not only in the field of technology, but also in the entire stock exchange. What made them reach where they are right at the moment? Watching the market’s demand closely, adapting to the current trend and innovating on top of their existing stack of products, have been the recipe to their enormous success. If you observe keenly, each of these tech tycoons started with a business which they either expanded or changed to cater customer’s demand and adhere to the current trend. Facebook started as a social networking website but now small to medium scale business owners have broad range of capabilities on the site; starting from using its marketplace feature to using messenger bots for their customer service automation. Similarly, even though Amazon and Google are frontrunners in their respective fields, yet their IoT (Internet of Things) products have been very popular among users from all age groups. Apple caught up with race by recognizing the value of health analytics, which made them innovate their smart watch and integrating it with the phone.

**Discussion of three trends**

One major trend has been chatbots, which are powered by Artificial Intelligence (AI) and machine learning. When smart phone apps emerged into the market, the usage of an internet browser started to decline. The apps were right at your fingertip, and you don’t have to type a web address and browse through. Now there is another shift happening, which is chat bots. As Beerud Sheth states “Just as websites replaced client applications then, messaging bots will replace mobile apps now.”. Facebook messenger has integration with bots from wide range of small and big companies. Now you don’t have to go to the CNN website to read the news. Users can subscribe to its bot in Facebook and can type a message to start the conversation and the bot will respond with the news headlines. Also, financial organizations have started using these chatbots extensively to automate the customer support. Now for a simple transaction, customers do not have to make a phone call to the bank. The chat bots have been intelligent and secure enough to do the financial transactions. Usage of chatbots have become a win-win situation for both the users and the business owners. From customers’ perspective, it is readily available to them 24/7; no hassle of making a phone call and waiting for the next available representative. Similarly, for business owners, the usage of bots has increased the efficiency of service; more accuracy in serving the customer; helping them in gathering more data about the customer, which eventually helps them targeting the right customer. Chatbots are definitely going to be the game changers.

The next big innovation in current time is the Internet of Things (IoT). An IOT can be any device that is connected with a simple sensor or a smart phone or a wearable smart watch via internet. Google’s Nest has been one of their highest sold household products. This intelligent device analyzes the information about user’s comfort level, based on the data gathered it automatically sets the temperature. Not only the thermostats, but also a lot of electrical appliances, light bulbs, switches can be connected to the smart phones through IOTs. It has made customers life easier and most importantly it has helped the customers save energy significantly. Hence, the energy companies encourage their customers to take the most advantage of these devices. Even though there were some security concerns initially, these leading companies have started taking major steps to address that issue. “We are looking at a future in which companies will indulge in digital Darwinism, using IoT, AI and machine learning to rapidly evolve in a way we’ve never seen before," says Brian Solis, from Altimeter Group.

Wearable smart watches have been around for few years now. However, the latest innovations by companies like Apple and Fitbit, have been revolutionary and makes these watches become another trend in the tech world. As Margi Murphy pointed, “new smartwatches can detect if an elderly person has fallen and will call emergency services if they lie motionless for more than one minute, a feature that has been heralded as a "game changer" in the wearable market.”. The usage of these watches has not only been observed within senior citizens, but also in all age groups. An independent study by Rand Europe found that “[the people] with the trackers managed 4.8 days activity a month on average - compared with 3.5 days among those without such devices”. Recently, Apple released the new version of their watches which can read the heart bits and alert the user in case of any abnormalities. New features in these wearable devices are always on the cards, which will take the most benefit of the health analytics.

# Conclusion

Technological developments have been observed in many other fields as well. However, evolution of AI has made the software developers eager to build upon these three trends. Definitely chatbots, IoT devices and wearable watches have made the life of the customers easier. In addition, they help the business owners and healthcare service providers know the users more and do some predictive analysis, which of course helps a large percentage of their customer base. However, some of users have shown some reluctancy to use these products and questioned about the security of such devices and the data privacy. The producing companies have been working hard to address this concern, and they have come a long way.

**References**

Beerud Sheth. (2015, September). *Forget Apps, Now The Bots Take Over.* Retrieved from https://techcrunch.com/2015/09/29/forget-apps-now-the-bots-take-over/

Brian Solis. (2018, November). *The Internet Of Things Is Ushering In A New Era*. DeCode Staff. Retrieved from https://medium.com/decodein/the-internet-of-things-is-ushering-in-a-new-era-ebf74c80c472

Margi Murphy. (2018, September). *'Game changing' Apple Watch Series 4 can detect potentially deadly falls.* The Telegraph, San Fransisco. Retrieved from <https://www.telegraph.co.uk/technology/2018/09/12/game-changing-apple-watch-series-4-can-detect-potentially-deadly>

Rand Europe. (2018, November). *Apple Watch could add two years to your life, research suggests*. The Telegraph. Retrieved from https://www.telegraph.co.uk/news/2018/11/28/apple-watch-could-add-two-years-life-research-suggests/.