Impact of Technology on Health & Wellness

TREO Talk Paper

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Abstract

The recent national focus on health and wellness has led to research initiatives spanning multiple disciplines. Related studies include but are not limited to exercise, nutrition, work and rest habits, levels of activity, and understanding how to influence individual behavior to reach desired outcomes.

Social Facilitation Theory suggests that individuals are more motivated and productive in exercise related activities in the presence of others. An initial multi-university study, involving 65 high school juniors and seniors and 120 university freshmen and sophomores was performed to explore whether wearable devices could be used as a surrogate for the social presence of others and examined if the technology enhanced exercise related activities and possibly participant motivation. Survey data, as well as device activity data were used to analyze these phenomena. The research objective is to improve our understanding of the effects of technology on health and wellness and enable us to develop and propose a Technological Facilitation Theory.

Since it is possible to capture vast amounts of data real-time in a variety of forms at the individual level, concerns are being raised regarding the ubiquitous nature of wearables. Wearables enable constant connectivity and monitoring, positioning them at the center of discussions related to the Internet of Things (IoTs) and data analytics. Furthermore, the vast amounts of data produced by wearables is enabling data scientists to predict user behavior and health and wellness outcomes.

With the emphasis on preventive healthcare, organizations are attempting to provide evidence to insurance companies regarding the overall well-being of employees. Approximately half of the organizations exceeding 50 employees have wellness programs. Of those offering wellness programs, many have incorporated the use of wearables to collect health metrics. The future trajectory of this research will seek to explore the issues surrounding the use of wearables in connection with health and wellness programs. The initial formulation of questions associated with this research are:

1. How can human resource organizations assess and determine the health and wellness of their employees through the use of wearable technology devices? And (2) To what extent is this information sufficient to provide medical insurance companies evidence of employee health and wellness from a preventive care perspective?

Issues related to data storage and collection as well as data privacy, data security, data discrimination need to be investigated. The privacy rights of individuals need to be considered when using wearables to assess the health and wellness of users. User intention and commitment to wear the device must also be investigated. According to Fitbit’s 2015 regulatory filings, users’ rate of use was at 50% for the first quarter. This same observation held true with our adolescent (e.g. high school) participants. Furthermore, the questions of coercion and surveillance need to be considered, such as users not being inclined to use the device and whether they should be given a freedom of choice.

We can certainly look forward to unprecedented opportunities but the consideration of wearables in the IoTs domain needs to address concerns and constraints as well. We expect to gain insight through our future research and gain a better understanding of how to address these and other related questions.