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Benefits of the Internet of Things

The Internet of Things is changing and transforming the way human society lives， works and heals (Slowey). One of the earliest examples of the Internet of Things was the Coca-Cola machine located at Carnegie Mellon University in the early 1980s. Local programmers would connect to this refrigerated device via the Internet and check to see if a drink was available and if it was cool before traveling. The Internet of Things concept was not officially named until 1999, when Kevin Ashton described the Internet of Things (Foote). The IoT consists of a vast network of Internet "things" and devices. Using this approach, more devices without a screen would be able to function as if they have a computer system. These devices allow people to access and track data from anywhere on the planet. People benefit greatly from the use of these devices (Randolph). A good example of a recent addition to the Internet of Things is the doorbell that the ring links to your smartphone. When the doorbell is pressed, the "ring" signals you and lets you see who it is and talk to them. Many people are resistant to the advent of the Internet of Things (IoT) era, however, because they fear it will pose a significant privacy risk to them (Foote). Information technology is often mentioned as the source of privacy. However, those privacy risks can be solved or reduced in many ways, even information technology itself can help(van den Hoven et al.). Despite this concern, IoT offers individuals and the business community, especially the healthcare sector many benefits.

Individuals are a large consumer community for IoT products, and individuals benefit from the Internet of Things by having more effective and independent living, as well as a smarter and safer home. When individuals use IoT devices, it will bring a lot of convenience to them due to its fast integration and tracking of data. Wearable devices are the significant ubiquitous technology of the Internet of Things in day-to-day life (Poongodi). Wearable self-quantitative devices such as smartwatches, sports bracelets, portable cameras, and most wearable devices can convert everyday actions into data to be sent to the cloud for processing. They are as compact and energy-efficient as possible, making them more appealing to consumers than bulky self-quantitative devices (Lee et al.). Wearable self-quantitative devices help people get their personal data faster and can use this reference data to adjust their lifestyle for the better life. A smart home uses sensors and control systems to track the home and adapt the mechanical systems to suit the needs of the occupants. Smart homes can not only transmit data to people quickly through the integration of environmental data but can also adjust the indoor environment through the analysis of data to provide more comfortable, safer, and more cost-efficient homes (Gross). In a positive way, IoT helps people to get data about themselves and the environment more easily. Integrating these data together can provide a reference for people to improve their lives.

The comparisons are increasingly embracing revolutionary solutions that operate with IoT as a result of the enormous effect of IoT on individuals. By using IoT technology, commercial companies can minimize production downtime. After gathering, tracking, and analyzing data, IoT technology allows for remote and predictive maintenance (Kiel et al.). Furthermore, offering a high-quality user experience to consumers is a critical element for businesses to achieve a competitive advantage in the marketplace (Randolph). Commercial companies can use IoT technologies to communicate and negotiate more clearly with their customers, allowing them to better understand their needs. Thus the supplier-customer relationship will be strengthened (Kiel et al.). Not just that, but partnering with IoT will help businesses increase competitiveness and employee efficiency. It is the IoT's connectivity and extensive communication that can minimize corresponding time and human labor. Workers are able to more rigorously monitor the performance of each process. They are transformed from manipulator to controller and problem solver. They can do more work in less time and improve their employee job satisfaction (Kiel et al.). Overall, by embracing IoT, business companies can enjoy the advantages of more stable equipment maintenance, better consumer relationships and more effective industrial operations.

IoT also has enormous promise in healthcare fields, assisting the sector in improving the quality of healthcare services. IoT links doctors, ill people, and devices. One of the most critical aspects of IoT in healthcare is the remote health check mechanism. It allows patients to be tested and given expert advice no matter where they are. Remote healthcare exams may be performed by doctors using software that collect physiological data from patients via remote access(Huang et al.). Telemedicine has now spawned a slew of Internet of Things (IoT) devices. Those devices have the potential to usher in a new age of specialist services in healthcare. Individuals may use IoT devices to schedule alerts for meetings, blood pressure shifts, calories expended, daily real-time tests, patient data management, hospital emergency management, weight management, blood data management, and more in the near future. Thanks to the mechanism of remote health check, IoT-based in-home emergency care may be used to support the elderly (Pang 112). Meanwhile, the use of IoT systems will help hospitals track various medical devices more efficiently (Tori). It is obvious that the medical industry uses IoT technology to create a new generation of precise and life-saving health services.

The efficient use of resources and the ability to collect data from IoT devices brings important convenience to individuals, the business world, and healthcare. Although there are certain pitfalls in terms of user privacy, Tori claims that IT will tackle those challenges in a vast range of ways, including tools to enhance anonymity, cryptography, handle identities and more. Not just that, but regulatory frameworks may be similarly useful to ensure the safe usage of IoT technology. Understanding how IoT can support people, industrial industries, and the healthcare sector can assist all those who are eager to collaborate with IoT in making better use of IoT technologies. It will also assist those who are still reluctant to balance the positives and drawbacks of comparing the Internet to the Internet in order to properly compare the advantages of IoT with their complaints.

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