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Moral Concern of the Internet of Things

This paper will argue why the Internet of Things (IoT) benefits outweigh its moral concern; this will be evaluated through utilitarian and deontological ethical theories. The IoT is broadly defined as the interconnected network of various physical objects which are enabled to send and receive data. There were over 10 billion active devices in the IoT in 2021; it is estimated that, “there will be 152,200 IoT devices connecting to the internet per minute,” by 2025 (Jovanovic). With the increased number of devices connecting to the internet, by 2025, the data generated is expected to reach 73.1 zettabytes (Jovanovic). The most significant concern of the integration and exponential growth of the IoT is that the data that is being collected may be related to people as well as their daily activities and the increased relationships between the ‘digital’ and ‘real’ worlds (Baldini et al.). The vast amount of data that is being generated and shared between devices create ethical concerns regarding the collection and use of data.

The first ethical theory we will examine and apply to the ethical concerns of IoT is utilitarianism. The utilitarian ethical theory states that an act is morally

permissible if the act results in overall happiness/pleasure when considering all persons/parties involved. The first party, and often the only party considered, are the customers and users of the devices. The users of these devices receive a higher benefit of happiness because the devices connected allow the user to view and benefit from their own data. Although there are negative benefits to the users, i.e. when data is shared or leaked, the benefits largely outweigh the negatives. The companies benefit from their devices because they will thrive by having a connectable device and the data being collected will allow them to better their products, possibly create new products, and integrate their products with other devices for the ease of their consumers. Furthermore, the majority of companies connected to the IoT pride themselves on transparency and maximizing happiness for their users (Ebersold and Glass). Thus, from a utilitarian viewpoint, the data collection and use are morally permissible because the overall benefit maximizes the happiness of the persons involved.

Rather than focusing on acts resulting in happiness, the deontological theory states that an act is ethically permissible if it is in accordance with ethical principles and rules. One of the fundamental principles that the IoT has adopted is, "... individuals should be treated as ends (not as means), and maintain their rights to property, autonomy, private life, and dignity," (Tzafestas). Deontologists argue that the collection and use of their data are respected because they are approved by the

user within the user terms. By following this principle, the majority of companies that sell devices and 'things' connected through the internet are not violating the moral rights of others. Although there are instances where companies and malicious actors go against the mentioned principle and violate the rights of others, these are outlying instances. When these instances occur, it is typically a result of a single bad actor, not the company or user. Thus, the rights of the user are not violated by the parties in charge of the device. When the companies are collecting and using the data, because the user accepted the terms from the company, the company is not breaking any rights of the user. This shows that the data being collected and used is being protected through the company terms and no wrongful act is occurring because of the acceptance of the terms by the user.

Both utilitarian and deontological ethical theories show that the ethical concerns of data collection and use through the Internet of Things are ethically permissible. Utilitarianism shows that it is permissible because the overall benefit of the data maximizes the happiness of all the parties involved. Deontologism also shows that ethical concerns are permissible because the companies involved in the IoT are not breaking any rights of the users. Since both moral theories show that the collection and use of data are ethically permissible through the IoT, it goes to show that it is ethical, with its current standards, to continue the use and collection of the data of its users.

Citations

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