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Concerns and Implications Surrounding IoT Forensics 2.0

Ethical Concerns and Implications

Today it is difficult to have a candid conversation surrounding IoT devices without the topic of ethics coming into play. Because of the broad nature of the term IoT, these devices appear in a number of different scenarios, each requiring their own sets of rules, regulations, and ethical boundaries. For example, IoT devices being used in the healthcare setting must collect, store, and transmit data in ways that ensure HIPAA compliance, and it must be ensured that life saving devices are subject to minimal downtime, if any at all. Of course, compliance is not the only reason why this topic should be of concern in this field, and the rights and privacy of the average consumer must also be taken into consideration. As the devices around our homes become smarter and smaller, topics such as data security and user privacy need to be taken into serious consideration. In this field, it is very easy to separate the technology from the end user, and to that note it must be ensured that the user is not simply a means to an end.

Mitigation

It appears that litigation would be the most effective way to ensure that IoT devices comply with ethical codes. Some of this litigation already exists, however there is still much to be desired. Litigation passed surrounding this topic must concern transparency, privacy, accountability, and control. Frameworks surrounding these topics should be created, and they should cover who is qualified/responsible to take on these tasks, as well as the topic of enforcement, for instance. Within the scope of my project these ideas will be of less concern, however they may become relevant during my data analysis and observations.

Sources

The two sources I have listed below cover topics surrounding ethics and IoT. The first is an article written by a multinational team and published by doi.org. this article concerns the ethical implications of many emerging technological fields, including IoT as well as AI. It breaks down these ethical concerns into a number of different categories Which are dissected for each topic of discussion. The second is a paper written by Sudeep Pasricha and published at Colorado State University. This paper specifically focuses on the applications of IoT in the medical field, and the ethical implications surrounding it. Both of these sources will prove useful for an

objective analysis of the current state of ethical standards in the IoT field, as well as what is left to be desired.

Works Cited

Nehme, Esther, et al. “Converged AI, IOT, and Blockchain Technologies: A Conceptual Ethics Framework - AI and Ethics.” *SpringerLink*, Springer International Publishing, 9 July 2021, https://link.springer.com/article/10.1007/s43681-021-00079-8.

Pasricha, Sudeep. “Ethics for Digital Medicine: A Path for Ethical Emerging Medical Iot Design.” *ArXiv.org*, Colorado State University, 21 Oct. 2022, https://arxiv.org/abs/2210.12007.