The Internet of Things (IoT) is all about using devices to connect and work automatically and smartly over the Internet. It functions as a hub and communicates with multiple devices. IoT is used to drive the modernization of new services and products, an opportunity to reduce time to market (Tejada, 2023).

There are quite a few technical challenges with IoT app development including managing multiple devices with different requirements and from different manufacturers as the diversity of IoT devices amplify the potential security risks. One of the primary constraints in connecting to multiple devices is dependency on connectivity to the internet and power consumption. There are challenges associated with automation as well, as each device may have its vulnerabilities with different risk levels and unique security requirements (Rudyi, 2023). However, there is also a chance to integrate into a larger system to optimize operational efficiency and reduce costs (Borgini, 2022).

As a result of non-standard app development with enhanced security, interoperability, and data exchange may be seriously hampered by the inevitable change in technology. Therefore, by standardizing the app development, there is an opportunity to create a cost-effective IoT deployment (Borgini, 2022).

IoT data management is very complex as a variety of data is generated including unstructured data and different ways of data processing required (Rudyi, 2023). Although IoT helps people in modernization, it also has social effects because people are affected by it by staying indoors and not moving from their couches to turn off the lights, and because they sleep, wake up, and act in accordance with the devices creating an unhealthy environment (Kumar, 2023). While IoT has proven to be useful, there are still some issues and drawbacks that need to be addressed.

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