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The Internet of Things: Ubiquitous Computing Proposal

Ubiquitous computing is a part of the Internet of Things concept where everyday objects will be connected to the internet. Ubiquitous computing is a growing development in computer science that focuses on using small computers to assist in everyday tasks. It is a trend where computational abilities are implanted into everyday objects. Ubiquitous computing involves wireless connections and networks to allow these objects to automate certain functions. The main focus of ubiquitous computing is to enable everyday objects to use embedded computers to provide services that can be performed at anytime and anywhere. Ubiquitous computing is expected to increasingly be implemented as time goes on and will eventually be a significant part of everyday life. It is predicted that "…there will be more than 75 billion IoT [Internet of Things] -connected devices installed worldwide as of 2025…" (Mertala, 2020, 84). In the future, people will become heavily dependent on ubiquitous computing devices to aid with daily tasks.

Computer scientist Mark Weiser, the father of ubiquitous computing, explains in his article, *The Computer for the 21st Century*, that ubiquitous computing comes in the form of tabs, pads, and boards (98). Tabs are small wearable devices, pads are devices around the size of post-it notes, and boards are much larger devices used as displays. Devices that are part of ubiquitous computing are laptops, smartphones, tablets, smartwatches, sensors, and smart assistance devices like Alex or Amazon Echo. Weiser intended for ubiquitous computing to be an, "… almost invisible computing and communication infrastructure able to augment the physical world with human-centric, seamless services…" (Giaglis et. al, 2008, 2). Ubiquitous computing is meant to provide the type of assistance that would only be noticeable when gone. Currently, many industries that are dedicating time and money on research and development to create more ubiquitous computing environments where most tasks will be automated by a ubiquitous computing device. These industries include energy, entertainment, healthcare, logistics, and the military. The Internet of Things is important because ubiquitous computing systems have the ability to use big data analysis to collect, process, and communicate data. This allows the devices to use the data to adapt and understand their environment and improve the quality of life for those involved.

References:

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