

Wearable Gadgets

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Abstract -The terms wearable technology, wearable devices, and wearable refer to electronic gadgets or computers that are integrated into clothing or accessories that can comfortably be worn on the body. These wearable machines can perform some of the same computing tasks as mobile phones and laptop computers and in some cases wearable technology can surprisingly surpass these devices entirely. Wearable technology these days tends to be more sophisticated than hand-held technology on the market as it can provide scanning features that are not seen in mobile or laptops like the tracking of such things as physiological function.

Keywords:

- Nike+ FuelBand
- Swarovski USB Necklace
- USB Cufflinks
- Smart Watch

I. Introduction

wearable technology has a lot of people talking. And rightly so. We seem to be looking at the dawn of a new era in tech that may reshape our lifestyles for the better. From glasses that provide detailed contextual information about our surroundings to accessories that collect data on our daily actions and habits, the potential of wearable devices is limited only by our imagination. In this *Fast Track*, we take a broad look at wearable technology and how it has evolved over the years into formidable category of its own. We will delve into the history of wearables, from its humble beginnings as calculator watches to the high-powered smart watches and VR headset that look to change the way we interact with technology and the world around us. Discover how Science Fiction ideas inspired engineers to develop innovative UIs for humans to better interact with not just wearables but technology on a whole. We discover how the smart watches and fitness bands grew in popularity and how a slew of companies decided that this market was a ripe one in which entrepreneurs should invest. We also take a look at

recent trends in the wearable market and analyze the potential for wearables as daily driver devices.

II. Materials and methods

SWS have the potential to monitor and respond to both the patient and the patient's environment, and the advances in the technology behind the development of SWS are steadily increasing. SWS are commonly recognized as one of the technological cornerstones for HM. Intelligent, low-cost, ultra-low-power sensor networks are designed to help provide services to dependent persons and can collect a huge amount of biomedical information from dependent individuals. They offer new resources and bring new challenges as a result of the data that they provide rapidly, dependably, and safely. As wireless technologies and ubiquitous and pervasive computing continue to develop, so will wireless network sensors mobile devices, intelligent wearable devices SWS, and data communication networks.

III. Current features of wearable systems

Non-invasive sensor systems allow monitoring of physiological functions, daily activities, and individual behaviours. Wearable HM systems may include various types of miniature wearable, implantable or in vivo sensors. These biosensors can measure physiological parameters such as body and skin temperature, heart rate, ECGs, EEGs, electromyograms (EMGs), or SpO2. Smart devices can provide real-time processing. Data transmission via wireless body communication networks enable patient monitoring by healthcare providers that can be alerted as soon as a dangerous event occurs.



The aim of this section is to review wearable systems capable of monitoring individuals such as the elderly, the handicapped, those suffering from chronic diseases, and the injured with special needs.

- Assessable parameters and users of SWS
 - When, where and how SWS can be used
- There is a growing interest in finding new healthcare solutions to provide care, or manage and support patients or individuals anywhere at any time. Innovative portable and wearable systems offer solutions to accessible and good quality individualised HM services.

Conclusions

The aim of this study was to provide an overview of the current status and future



perspectives in research and development of wearable systems related to healthcare. For this goal, it was necessary to define the

field of wearable systems. These systems may include anything from monitoring the elderly or patients undergoing surgical operations to advanced sensor supervision in the case of infant respiratory disorders or soldiers on the battlefield.

Pharmaceutical companies are now undergoing a sort of revolution of their practice. In the past, they used to produce revolutionary molecules to treat diseases (i.e., cardiovascular disease, diabetes, respiratory diseases, and renal diseases). With recent advances in new materials (i.e., membrane, textile, fabrics), electronics and telecommunication information technology, treatment with pharmaceutical products has become more accurate with continuous automatic processes to dispense an effective dose of drug to treat disease or in vivo, implantable wearable devices to replace defective organs. Wearable systems feature a broad and heterogeneous range of devices, WSN standards, applications, and involve the efforts of numerous researchers, developers and users. Due to its interdisciplinary nature, a number of applications related to health care integrate biomedical engineering and medical informatics.

Other knowledge in the fields of medicine, social sciences, psychology, economics, ethics, and law must be taken into account and be integrated into the development and deployment of wearable healthcare systems.

Acknowledgements

Special thank and recognition go to my advisor, Associate Professor. Mr. Mahendra Singh Sagar, who guided me through this research, inspired and motivated me. Last but not least, the researchers would like to thank the Teerthanker Mahaveer University (TMU), Moradabad for supporting this research.