JEWELLERY WITH EMBEDDED INTELLIGENCE

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ABSTRACT:In today's era everything is digital from our phones to the house's main door. Thus, its nettlesome to memorize all passwords and keys. Mobile computing has shaped itself to break the chains that tie us to our desks. In the new epoch of digitals, there will be an explosion of computer parts all across our bodies, rather than just sustaining across our desktops. The latest computer craze has been to be able to wear wireless computers. smart watches, smart glasses etc. The "Digital Jewellery" looks to be the next for the tech savvies. This article discusses about a new Java-based, computerized Jewellery that will automatically unlock doors for computers as well as add creativity in the trending fashion.

Keywords: Mobile computing, digital jewellery, wireless computers, intelligence.

JEWELLERYWITH EMBEDDED INTELLIGENCE

Jewellery may be worn for number of reasons but the digital jewellery holds more value as it comprises of Microcomputer Devices and increasing computer power that has allowed several companies to begin producing fashion jewellery with embedded intelligence."**Digital Jewellery**" is a nascent catchphrase for wearable ID devices which becomes handy as they are wireless, that contain personal information like passwords, identification, and account information, it also has the facility of communication through various means leading to attract many companies across the globe. By the end of the decade I am sure, we could be wearing our computers instead of sitting in front of them.

COMPONETS OF DIGITAL JEWELLERY

Day to day problems like forgotten passwords and security badges are faced by each individual. Such problem can easily be solved through "Digital Jewellery". It is a nascent catchphrase for wearable ID devices which will have personal details such as passwords, identification or account details. To be more precise, they also have potential to be one-for–all replacements for driver's license, loose cash, key chains, corporate security badge, business cards, credit cards. Health insurance cards, and many more information can be stored.

With this new concept, rather than having one single device, the cell phones will be braked down into the basic components or segments so that they can be packed as different pieces of digital Jewellery. Each and every piece of Jewellery will comprise a fraction of the components which can be found in a conventional cell phone. On combining Digitalized-Jewellery cell phone, it works same as a conventional cell phone.

There are many components which resides in a cell phone namely:

Microphone, Receiver, Touch Pad, Display, Circuit Board, Antenna and Battery.

A prototype of a cell phone has been unfolded by IBM Team which compose segments of digital Jewellery which will work wirelessly on combining together and will possibly have Wireless Bluetooth technology for the performance of functions of the components of the cell phone mentioned above.

Here are the segments of digitalized-Jewellery cell phone with their functionality:

Earrings – This part has speakers embedded inside them which is regarded as the cell phone's receiver.

Necklace – It embeds the microphone within it. It enables the users to talk through the microphone.

Ring – Also called "Magic Decoder Ring" is an interesting part of the cell phone which is furnished with Light-Emitting Diodes (LEDs) that emits a flash whenever an incoming call is received. Moreover, different colors can be programmed in the flash light for different purpose namely for a specific caller or important calls.

Bracelet – This segment is facilitated with a Video Graphics Array(VGA) display. It is also called "Wrist Display". It enables to identify caller name and the phone number.

IBM's Magic Decoder Rings and Bracelets

The decoder rings being developed by IBM could be used to alert us about the email piling in our inboxes and could also tell us about the urgency of the few emails as per our preferences or favorite recipients.

IBM's Track Point technology is developing mouse rings to move the cursor wirelessly on the screen display. A little black ball will be placed or adjusted on the top of the ring that will allow users to move the cursor on screen, by turning around the central point of that little ball. This mouse ring will be of great value when, in future, the monitor screen will be of face size.

In the coming digitalized era, the displays will not be limited to only laptops and desktops, rather people will be wearing them like a bracelet. The major drawback of the bracelet. The major drawback of the bracelet being, the ability to read the information comfortably on the tiny bracelet screen, is being searched and researched on. Hopefully, the problem will be overcome and people will be wearing the displays like bracelet, ring, sunglasses etc. as fashion trend.

THE JAVA RING

At Java One Conference, the Java ring was first introduced. It was tested at an innovative, creative K-12 school, The Celebration School, just outside Orlando. The java rings provided to the students were programmed with Java applets, which is a small program written in programming language that could be downloaded easily by any computer system and hence easily accessible by students. These applets communicate with host applications on the system and are designed in such a way that they can also be run with other applications.
The Blue Dot receptor is a reader which allows communication between host system and Java ring.

The Java ring is a stainless steel ring which has a diameter of 0.6 inch. It also hasnumerous transistor processor approximately 1 millionwhich are treated as iButton. The specification of Java ring involves RAM of around 134KB and ROM of about 32KB, a real-time clock and a Java Virtual Machine. The Java Virtual Machine is a software that recognizes Java language or applet and translates it for user's computer system.

The foremost **CONCLUSION**
and basic idea behind the concept of digital Jewellery is to have the convenience of wireless, wearable computers while remaining fashionably sound. The world population engage themselves in various amusing and entertaining activities. Wearing Jewellery is one of the most common approach to these activities. Moreover, Jewellery be it made from the stones or pearls or shells or even from the bones, they survived the prehistoric times. It is hoped to have a future that will be marketable soon, however, various bugs are still to be encountered. Its capability like charging and the initial costs of it are only a trial of the complications that lurk.

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