**BIT 2315: E-COMMERCE**

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**TASK 1: DISCUSS MOBILE COMPUTING**

**Mobile computing** involves mobile communication, mobile hardware, and mobile software. Communication issues include ad hoc networks and infrastructure networks as well as communication properties, protocols, data formats and concrete technologies. Hardware includes mobile devices or device components.

**Advantages of mobile computing:**

1. **Increase in Productivity**- Mobile devices can be used out in the field of various companies, therefore reducing the time and cost for clients and themselves.

2. **Entertainmen**t- Mobile devices can be used for entertainment purposes, for personal and even for presentations to people and clients.

3**. Portability**- this would be one of the main advantages of mobile computing, you are not restricted to one location in order for you to get jobs done or even access email on the go

4. **Cloud Computing**- This service is available for saving documents on an online server and being able to access them anytime and anywhere when you have a connection to the internet and can access these files on several mobile devices or even PCs at home.

5.  **Connectivity:** You can stay connected to all sources at all times.

6**. Social Engagement:** You can interact with a variety of users via the Internet.

**Disadvantages:**

1. **Quality** **of** **connectivity**- as one of the disadvantages, mobile devices will need either Wi-Fi connectivity or mobile network connectivity such as GPRS, 3G and in some countries even 4G connectivity that is why this is a disadvantage because if you are not near any of these connections your access to the internet is very limited.
2. **Security** **concerns**- Mobile VPNs are unsafe to connect to, and also syncing devices might also lead to security concerns. Accessing a Wi-Fi network can also be risky because WPA and WEP security can be bypassed easily.
3. **Power** **Consumption**- due to the use of batteries in these devices, these do not tend to last long, if in a situation where there is  no source of power for charging then that will certainly be a letdown.
4. **Personalization:** You can tailor your mobile computing to your individual needs.

**DISCUSS PERVASIVE COMPUTING**

**INTRODUCTION**

It isthegrowing trend of embedding computationalcapability into everyday objects to make them effectively communicate3 and perform useful tasks in a way that minimizes the end user’s need to interact with computers. It is also called ubiquitous computing.

Pervasive computing applications can cover energy, military, safety, consumer, healthcare and logistics.

An example of pervasive computing is an Apple watch informing a user of a phone call and allowing him to complete the call through the watch or when a registered user of Amazon’s streaming music service asks her echo device to play a song, and the song is played without any other user intervention.

The goal of pervasive computing is to make devices ‘smart’ thus creating a sensor network capable of collecting, processing and sending data , and ultimately communicating as a means to adapt to the data’s context and activity. In essence, a network that can understand it’s surrounding and improve the human experience and quality of life.

**CONSIDERATIONS OF PERVASIVE COMPUTING**.

Pervasive computing might not deliver value to everyone.

To be successful’ an organization must do several things when undertaking a pervasive computing project.

These include:

* Define clear goals-determine how and why pervasive computing will be used. Include the job functions and system function to be mobilized.

Articulate the expected benefits and how they will be measured. It’s best to implement a pilot and verify that the expectations will be made before embarking on enterprise wide efforts.

* Understand the work environment- determine the type of network coverage available. Be aware of the costs involved. Cellular data networks are metered today, making it expensive to transmit large amounts of data. Also, determine early on the type of devices needed.
* Address device management and security issues upfront-
* Select a wireless software vendor carefully-
* Evaluate the impacts to your technical staff-organizations should not underestimate the experience needed to complete a business critical pervasive computing project.