Assignment 1

Human Computer Interactions
ICT – 3301

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How do you think new, high-density memory devices and quick processors have influenced recent developments in HCI? Do they make systems any easier to use? Do they expand range of applications of computer systems?

Human-computer interaction (HCI) is the study and planned design of human and computer activities and focuses on user satisfaction. Attention to human machine interaction is important, because a poor interface can make it hard for users to benefit from even the simplest systems. Recent developments in HCI mostly focus about the screen size, resolution and color range increase which needs high-density memory and quick processing power. Modern user interfaces require large amount of processing power. As an example, making a Large Ground Display (LGD) was almost impossible in few decades ago.

Increase of the memory of the computer allows extra functionalities. The devices which are used in these days track the user activities using their large memory and they interact with the user successfully. This has really improved the usability. But the other thing is, the ease of use of a system is often determined by a host of small features. Systems can be complex and large with huge memory and processing power but yet a better interface can reduce the complexity of a system. From enough processing power, the user will have a system which has better performance and run faster. He can work with more applications simultaneously without slow down the system. This makes easy workplace for the user.

Because of advances in memory and processing, some whole new application areas have become possible. If we take speech recognition, it needs to save large scale of words in a particular language. But without having a proper memory this task would have been impossible. Now there are some intelligent systems which can identify the speaker from their voice (speaker recognition).

There are some research areas in next generation interaction which will be a reality in next few years. For example, virtual and augmented reality, ubiquitous, pervasive, and handheld interaction, tangible user interfaces, perceptual interfaces, context-aware interfaces, sensing interfaces, speech and multi-modal interfaces, ambient interfaces, eye-movement based interaction. Model Human Processor was developed by improving the qualities of the processor. Developers wanted to draw an analogy between the ways human perceive (process) and remember (store) things and the processing and storage of a computer. A model of how human’s process information would allow HCI designers to

predict what types of interface features would work. There is no argument that these expansions will help users to interact with the systems easily.