ICT & Society CMT 406

introduction to communication and ict

communication has improved and evolved to facilitate out daily activities

In the 21st century, everything to do with communication utilities technology to disseminate information to a larger audience.

Information can be sent out in many ways such as email, Phones, Radio TV Electronic newspaper

Information refers to knowledge obtained from reading , investigating studying or research

We need information to make decision and predict the future.

**Communication**

The act of transmitting messages . Its a process whereby information is exchanged between individuals using symbols , signs or verbal interactions

Communication is important to gain knowledge . With knowledge we are more confident in expressing our thoughts and ideas

**TECHNOLOGY**

Use of scientific knowledge experience and resources to create processes and products that fulfill Human needs

Technology is vital for communication

**EVOLUTION OF COMPUTERS**

**First generation 1940 to 1956**

They were huge slow expensive and often unreliable

In 1946 Two Americans by the name of Presper Eckert & William Mauchly Build an electronic numeric iterator and computer which was ENIAC. And it used vacuum tubes in stead of mechanic switches

In 1941 the two gentlemen built the UNIVAC which could calculator at the rate of 1000 additions per second

There were new technologies developed at this stage :

i) Vacuum tube – The vacuum tube was n important advancement

an electronic tube about the size of a light bulb was used for internal computer components and were used in thousands

ii) Punched Card – This was used to store data

iii)Magnetic Tape – This was introduced in 1957 It was faster and more compact method of storing data and their use was more reliable & cost effective

(Floppy Disk)

**CHALLENGES**

i)Vacuum tubes generated a lot of heat causing many problems in temperature regulation and climate control

ii)The tubes burnt out frequently

Challenge with programming machines

**Second Generation 1956 1963**

There were three main scientists involved in the second generation John Barden , Walter Houser Brattain & William Shockley

Creation of transistors sparked the production of a second generation computers

Transistors were small devices used to transfer small electronic signals across a resistor

Transistors had many advantages compared to other

**Advantages**

i)Smaller than the vacuum tubes

Needed no warm up time

ii)Consumed less energy

iii) Generated less heat

iv) Faster and more reliable

**Third Generation 1964 1971**

in This era the IBM 370 series was introduced in 1964

It came in several models and sizes

The development of integrated circuits signals the beginning of the third generation of computers

Silicon chips were manufactured in 1961 in the silicon valley

Integrated Circuits Technology reduced the size and cost of computers

IC’s Complete electronic circuit with a small chip of silicon which is used as a semiconductor

Magnetic core memory was replaced by the Microchip

It was during this generation the first 256 bit ram was introduced

**Advantages**

i)The silicon chips were reliable cheaper and compact hardware and software were now sold separately

and thus the software industry was created

ii)Customer service industry flourished

**Fourth Generation 1971 to Present**

It took 55 years for the generation to evolve the growth of the computer industry developed technologies for computer inventions (hardware && software)

There are many types of computer models that developed eg IBM, DELL, ACER etc

In 1971 Intel created the first microprocessor

In 1976 Steve jobs created apple computer

In 1981 IBM built the first personal computer

Hardware technologies such as silicon chips, microprocessor and storage devices were invented

**Advantages**

I) The computer became 100times smaller than the first computer ENIAC

ii) There was an improvement in speed reliability and capacity

iii) Personal computers and software industry boomed

**Fifth Generation (Present and Beyond)**