

About Me

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Introduction to ICT

Lecture 01

Introduction to Information and Communication Technology (IICT)

- What is IICT?
- Significance of IICT
 - Why we need to study this course?
- Looking into the impact of Computers in our lives.

Before we start...

- They are coming, Run for your lives, the invasion has begun
- What I am talking about?
 - Foreign Army
 - Aliens
 - ... or what?

Yes! You are right, I am talking about computers.



ICT

- **Information**
 - Any entity or form that provides the answer to a Query
- **Communication**
 - Act of transferring information from one place to another
- **Technology**
 - Collection of techniques, methods and processes used to produce goods or services or accomplish objectives.



Do you use an
ICT





Amazing Facts and Statistics

JAN
2018

DIGITAL AROUND THE WORLD IN 2018

KEY STATISTICAL INDICATORS FOR THE WORLD'S INTERNET, MOBILE, AND SOCIAL MEDIA USERS

TOTAL
POPULATION



7.593
BILLION

URBANISATION:
55%

INTERNET
USERS



4.021
BILLION

PENETRATION:
53%

ACTIVE SOCIAL
MEDIA USERS



3.196
BILLION

PENETRATION:
42%

UNIQUE
MOBILE USERS



5.135
BILLION

PENETRATION:
68%

ACTIVE MOBILE
SOCIAL USERS



2.958
BILLION

PENETRATION:
39%

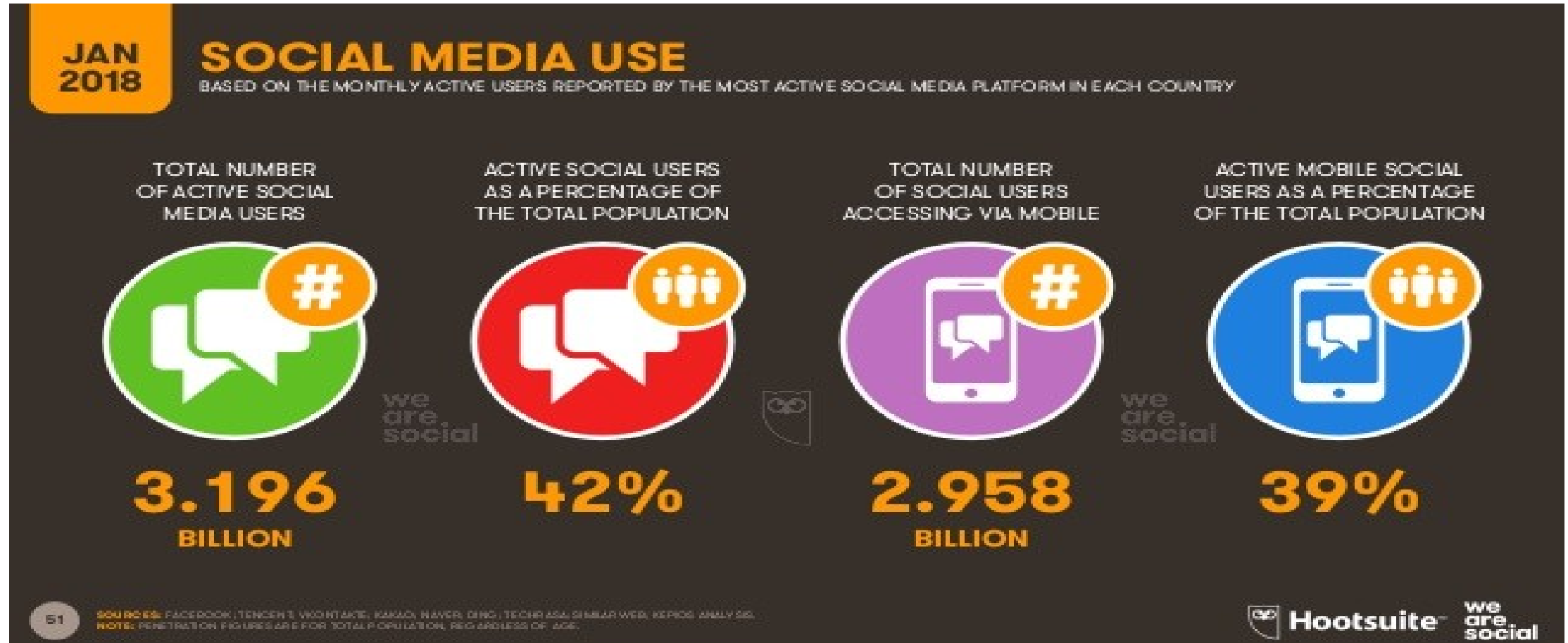
we
are
social



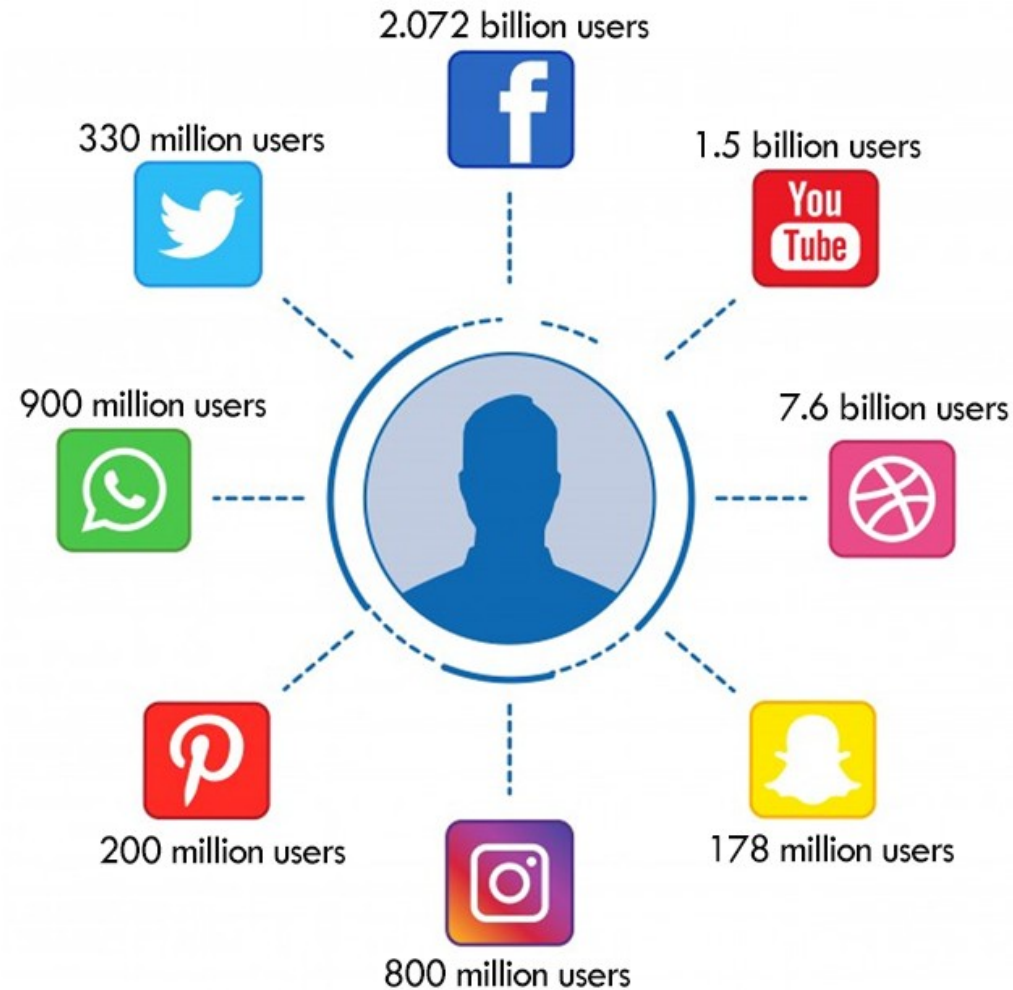
we
are
social



Amazing Facts and Statistics



Amazing Facts and Statistics



Cont...

- Computers are penetrating into every aspects of our lives
 - Air Conditioners
 - Cars
 - Airplanes
 - Smartphones
 - Etc...





So, these computers are taking over our lives.

Is this good or bad?

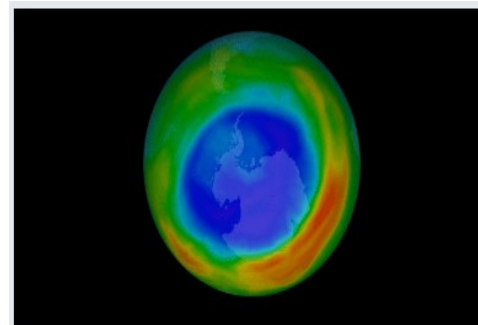
Some examples of Computers (Embedded Systems) in our daily life

Bright side of Computer

- Enable new discoveries
- Lead to efficiencies
- Making Life easy



24.0000006/7/365.2421891



NASA Sees First Direct Proof of Ozone Hole Recovery



Making Life Easy

Today, computers are used in every/most of the aspects of our lives.

Some aspects are given below:

- Social Media/Communication
- E-Commerce/ M-commerce
- Automation
- Defense
- Education and Science & Technology
- Recreational Aspects

Social Media/Communication

Some examples of Social Media

- Facebook
- Twitter
- LinkedIn
- Facebook Messenger
- WhatsApp
- ...



E-Commerce

- Amazon
- Daraz.pk
- UBER
- Air/Bus ticket booking and seat reservation



Automation

- Home automation system
 - Example: JARVIS by FACEBOOK
- Car assembly automation
- Food products packing

Defense/Military

- Missile Control
- Military Communication
- Military Operation and Planning
- Smart Weapons



Education

- Education
 - The computer provides a tool in the education system known as CBE (Computer Based Education).
 - CBE involves control, delivery, and evaluation of learning.
 - Computer education is rapidly increasing the graph of number of computer students.
 - There are a number of methods in which educational institutions can use a computer to educate the students.
 - It is used to prepare a database about performance of a student and analysis is carried out on this basis.



Recreational and Entertainment Aspect

- Some examples?
- Animated Movies
- High graphics games

Types of Computer

- PC (Personal Computer)
 - Small
 - Inexpensive
 - Business Use
 - Word processing, running spreadsheets etc.
 - Personal Use
 - Playing games, surfing the internet, movies, games etc.
 - Single user system



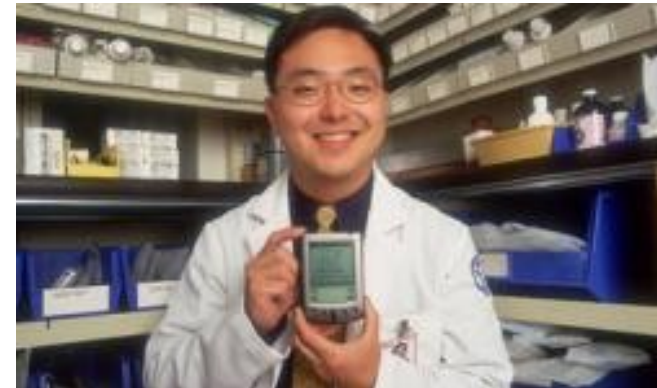
Types of Computer

- Desktop
 - PC not designed for portability
 - More storage and computation with less c
- Laptop (notebook)
 - Portable with integrated display
 - Battery operated



Types of Computer

- Netbook
 - Smaller and cheaper than laptops
 - Less powerful than laptop
- PDA (personal digital assistant)
 - Tightly integrated computer
 - Flash memory instead of hard disk
 - Touch screen instead of keyboard
 - Lightweight and reasonable battery life



Types of Computer

- Workstation
 - Desktop computer with more processing power
 - More memory
 - More capabilities in performing specialized tasks



Types of Computer

- Server
 - Computer that serves other computers over network
 - More processing power, memory and storage
 - Large in size



Types of Computer

- Mainframe
 - Very large size
 - Now known as enterprise server
 - More processing power
- Supercomputer
 - Very expensive
 - Fastest computers
 - Employed for specific applications which require immense amount of calculations
 - weather forecasting
 - scientific simulations
 - (animated) graphics
 - nuclear energy research
 - electronic design



Advantages of Computer

- High Speed
 - Units of speed in microsecond and nanosecond
 - It can perform millions of calculations in few seconds where it will take months for a human to perform same calculations
- Accuracy
 - 100 % error free
- Storage
 - More storage capacity than humans
 - All types of images can be stored

Advantages of Computer

- Diligence
 - Free from tiredness and lack of concentration
 - Can work continuously without error and boredom
 - Repeated task with same time and accuracy
- Versatility
 - solves different problems
 - Solving complex problems
 - Games
- Reliability
 - Machines with long lives
 - Easy maintenance

Advantages of Computer

- Automation
 - Computer is automatic machine
 - After taking input and program, then it can process without human interaction
- Reduction in manual work and paper cost
 - Data stored inside computers electronically reduces paper cost
 - Increases speed
 - Data retrieved easily and speedily when required

Weaknesses of Computer

- No I.Q.
 - No intelligence
 - Instructions given to computer
 - Cannot take decisions
- Dependency
 - Depends on instructions given by humans
- No Feeling
 - Cannot make judgment on feelings, taste, experience, knowledge

Cons

- They will
 - Annoy us
 - Infuriate
 - Even Kill us



But we have a choice:
**What to do about/with
this beast (Computer)?**

Trump to Kim: My nuclear button is 'bigger and more powerful'

Could Donald Trump press the button?

Mr Trump's latest comment states the obvious: a US president has immediate access to the nuclear codes.

However, the real process of launching a nuclear attack does not involve any button-pressing.

After high-level consultations, the president would exchange codes with top military officials. They are printed on a card known as "the biscuit", which he carries wherever he goes.

End of The Lecture