

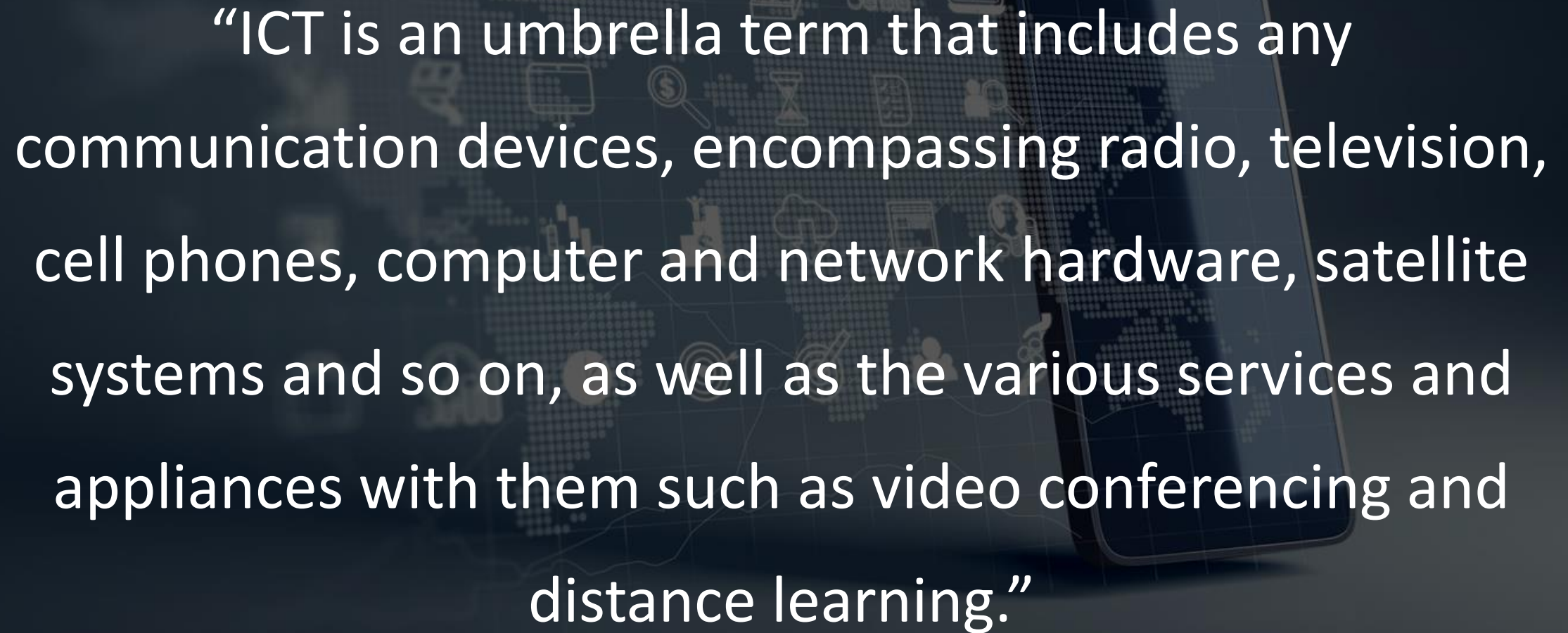


# Role of Information & Telecommunication Technologies (ICT) in Public Services Delivery

Punjab Revenue Academy  
Board of Revenue, Punjab

# What are Information & Telecommunication Technologies (ICT)?

“ICT is an umbrella term that includes any communication devices, encompassing radio, television, cell phones, computer and network hardware, satellite systems and so on, as well as the various services and appliances with them such as video conferencing and distance learning.”







# Types of ICT

- Telecommunications products (such as telephones)
- Radio
- Television
- Internet/ World wide web
- Information kiosks and transaction machines
- Multimedia
- Office equipment such as copiers and fax machines

# What are services?

- Services are intangible Products
- To lend tangibility, they need:
  - Reliability
  - Responsiveness
  - Assurance
  - Empathy
  - Tangibles



The gap between →

Gaps that  
cause  
unsuccessful  
services'  
delivery

The landowner/ public/ stakeholder  
perception and management perception,

Management perception and service  
quality specifications,

Service quality specifications and actual  
service delivery,

Service delivery and external  
communication,

Perceived service and expected service.

# Components ICT Framework

System software

Operating system

Input Device

Output Device

Storage Device

Memory Device

Hardware

Software

User

Network

Computer

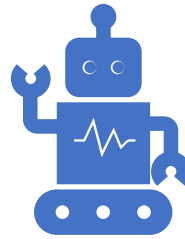
Internet

LCD  
Projector

# Operating Systems



Windows



Android



iOS

# Management Information Systems (MIS)

01

It revolves around people, technology, organizations, and the relationships among them

02

It helps organizations realize maximum benefit from investment in personnel, equipment, & business processes

03

It is a people-oriented field with an emphasis on service delivery improvement with the help of information technology



It is the use of information technology, people, and business processes to record, store and process data to produce information that decision makers can use to make day to day decisions



# Major Components of MIS

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Hardware

Software

Network  
Communications

Data

People

Processes

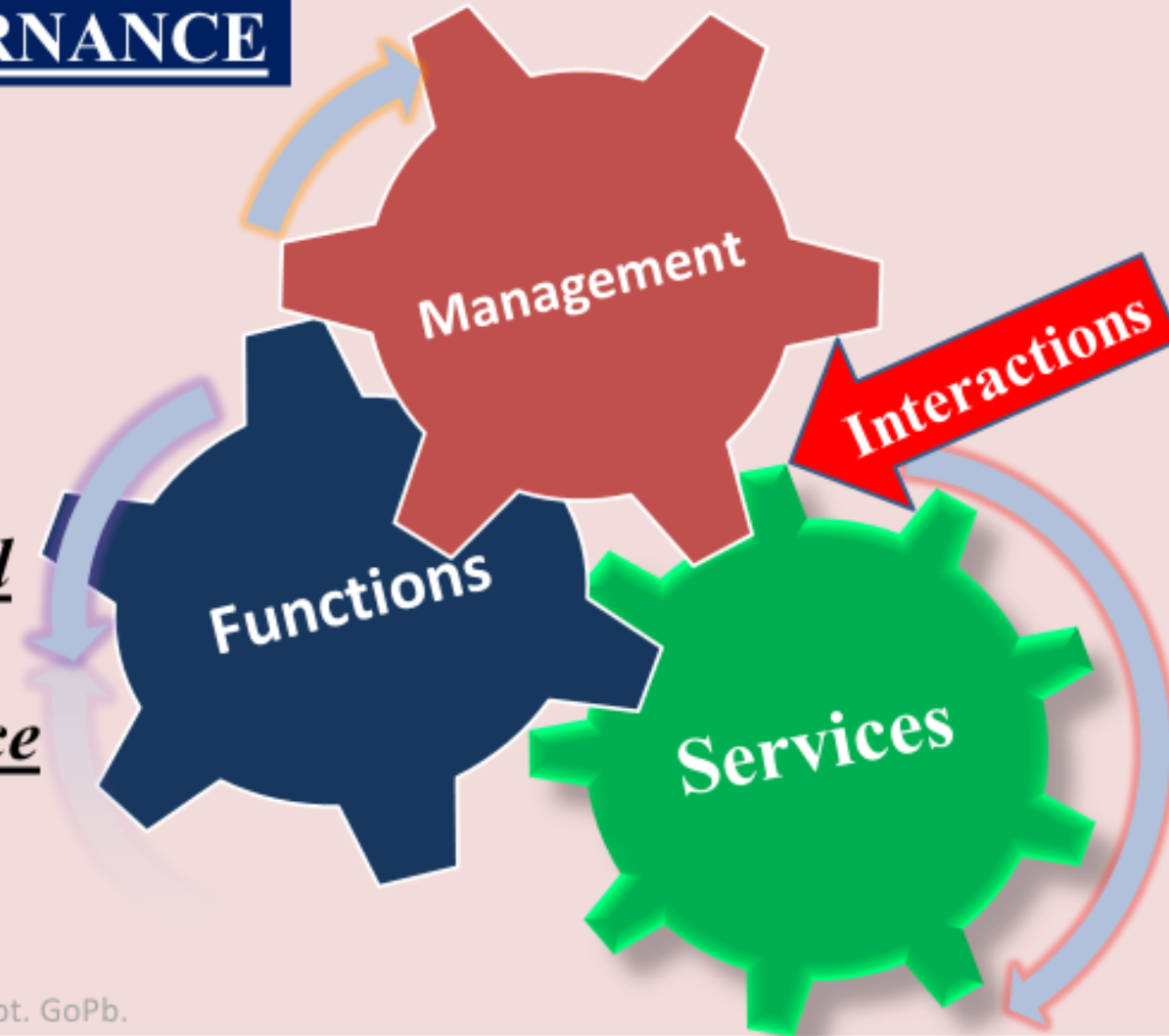
*Each has a specific role, and all roles must work together to have a working information system*

# Governance?

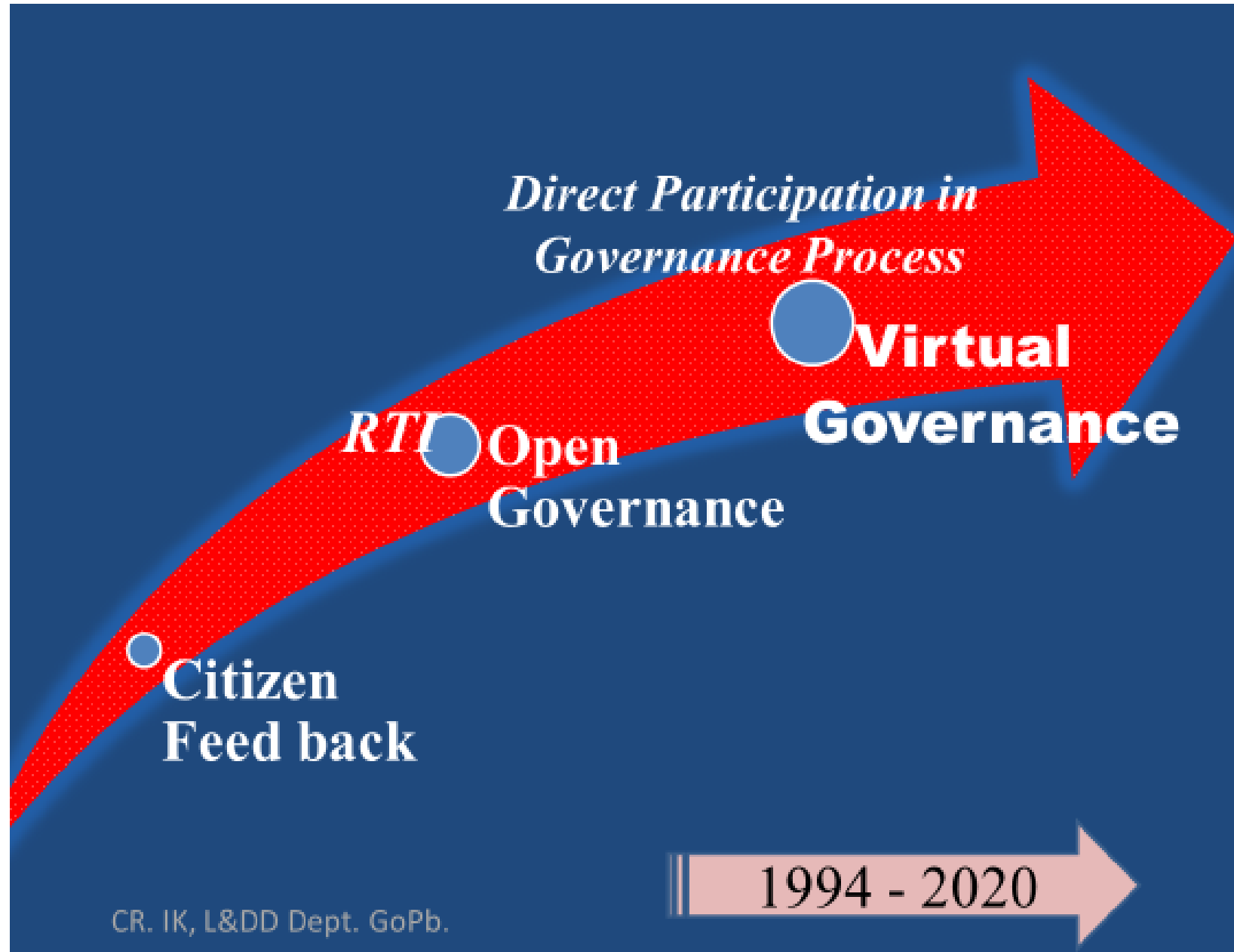
- ✓ It is process of delivering certain services
- ✓ It is the process of interactions through the laws, norms, power or language of an organized society over a social system

## **GOVERNANCE**

*more*  
*virtual*  
*in*  
*nature*  
*than*  
*physical*  
*in*  
*existence*



Different  
Governance  
Models after  
the advent of  
ICT



## Law of the Land

- Codified Law



## Service Delivery

- SOPs-extremely refined codification of rules- boundaries Just like electricity which is either "On" or "Off" or Binary Language: either "0" or "1"



CR.IK, L&DD Dept. GoPb

## (Virtual) Packets of Services



can be made available

**24/7**

plenty with **Pre-Programming** of desired response, constructed in some robust working business model

Automation  
of  
Public Services

Total working days

220

1 working day

8 hrs

Actual Service  
delivery/ year

220/ 3

*Virtual  
government  
means*

*government*

*at work equivalent  
to 5 years in 1 Year*

*i.e.  $73 \times 5 = 365$ ,*

*adding exponential growth to the square of  $5^2$  Yrs = 25 Yrs*

*i.e. **“30 years work by end of 2<sup>nd</sup> year”***

**73** days



# Disruptive Technologies

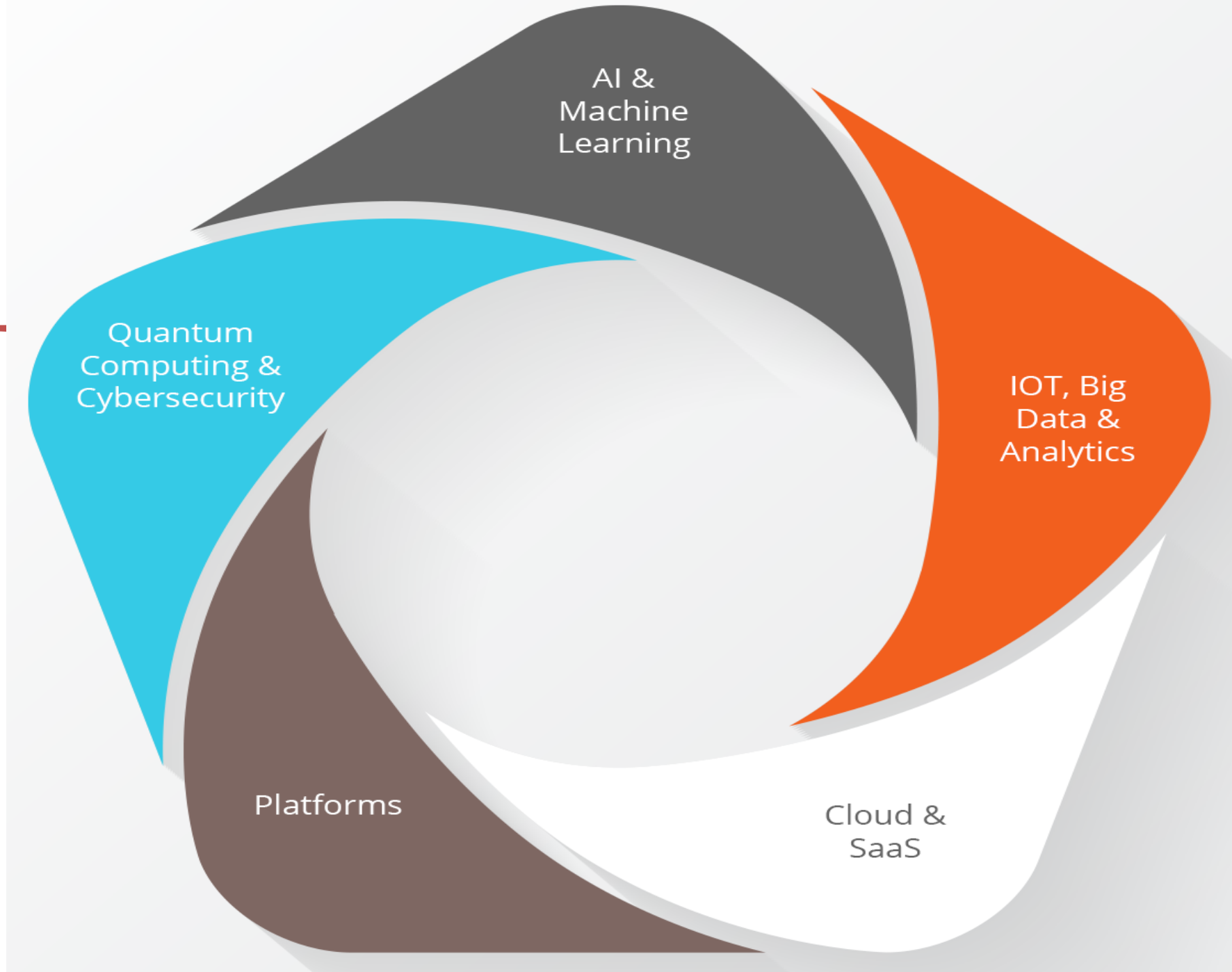
→ I.T.

*OR*

→ I.C.T.

*OR*

✓ **Disruptive Technologies**



# Automation- Guiding Principle

Information technology applied

to an efficient operation

magnifies the efficiency,

whereas information technology

applied to an inefficient

operation magnifies the

inefficiency” Bill Gates



# Automation- Guiding Principle

(Bill Gates)

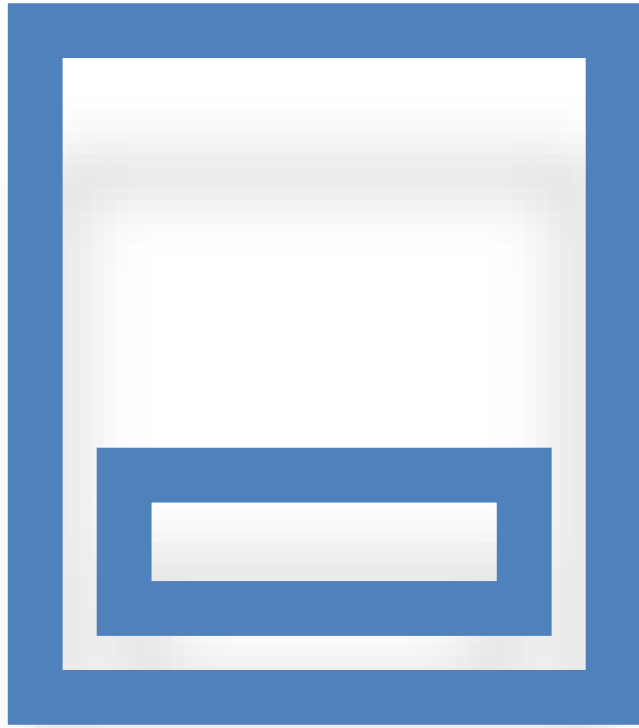
Information technology applied to an efficient operation magnifies the efficiency, whereas information technology applied to an inefficient operation magnifies the inefficiency”

**Self-Serving  
Technologies (ATM  
etc.)**

**1.5 hrs/ 90 min/ 45  
persons daily x 220  
days= 9,900**

**300 persons daily x  
220= 66,000**

**Demonstrable Model  
of Disruptive  
Technologies: 9211; &  
9966)**



# Demonstration of 9212 System