

# ICTs FOR ORGANIZATIONAL TRANSFORMATION



Microsoft. (n.d.). Bing.

**Week1: Introduction to ICTs  
for Organizational  
Transformation**

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# Agenda

## 1. Course Overview

✍ Course Description.

✍ Goals

✍ Objectives

## 2. Introduction

✍ Glance at ICTs

✍ ICTs in organizations

✍ Role/Importance of ICTs in organizations

# Course Overview (Description)

- This course is designed to equip learners with the skills and knowledge to leverage Information Technology as a powerful agent of change.
- Learn how to apply state-of-the-art IT tools and infrastructure to revolutionize businesses, governments, and entire organizations. Through a blend of theory to gain knowledge.
- Identify opportunities for IT-driven transformation: Analyze inefficiencies and envision solutions powered by technology.

# Course Overview (Goals)

- Equip students with a comprehensive understanding of Information and Communication Technologies (ICTs) and their role in organizational transformation.
- Foster critical thinking skills to analyze the impact of ICTs on organizational structures, processes, and culture.
- Develop practical knowledge in implementing ICT solutions to enhance organizational efficiency and effectiveness.
- Cultivate an awareness of ethical considerations and cybersecurity issues associated with ICT adoption in organizations.

# Course Overview (Objectives)

- Demonstrate proficiency in identifying and evaluating ICT tools suitable for specific organizational needs.
- Apply theoretical concepts to real-world scenarios, proposing ICT-driven solutions for organizational challenges.
- Collaborate in teams to design and present strategic ICT plans for organizational transformation.
- Evaluate the ethical implications and potential risks associated with ICT implementation in various organizational contexts.

# Introduction to ICTs for Organization transformation

## *Questions to ask*

- 1** What is meant by ICTs?
- 2** *What are they in an organization?*
- 3** *What is their role or Importance in an organization?*

# Glance at ICTs (What are ICTs?)

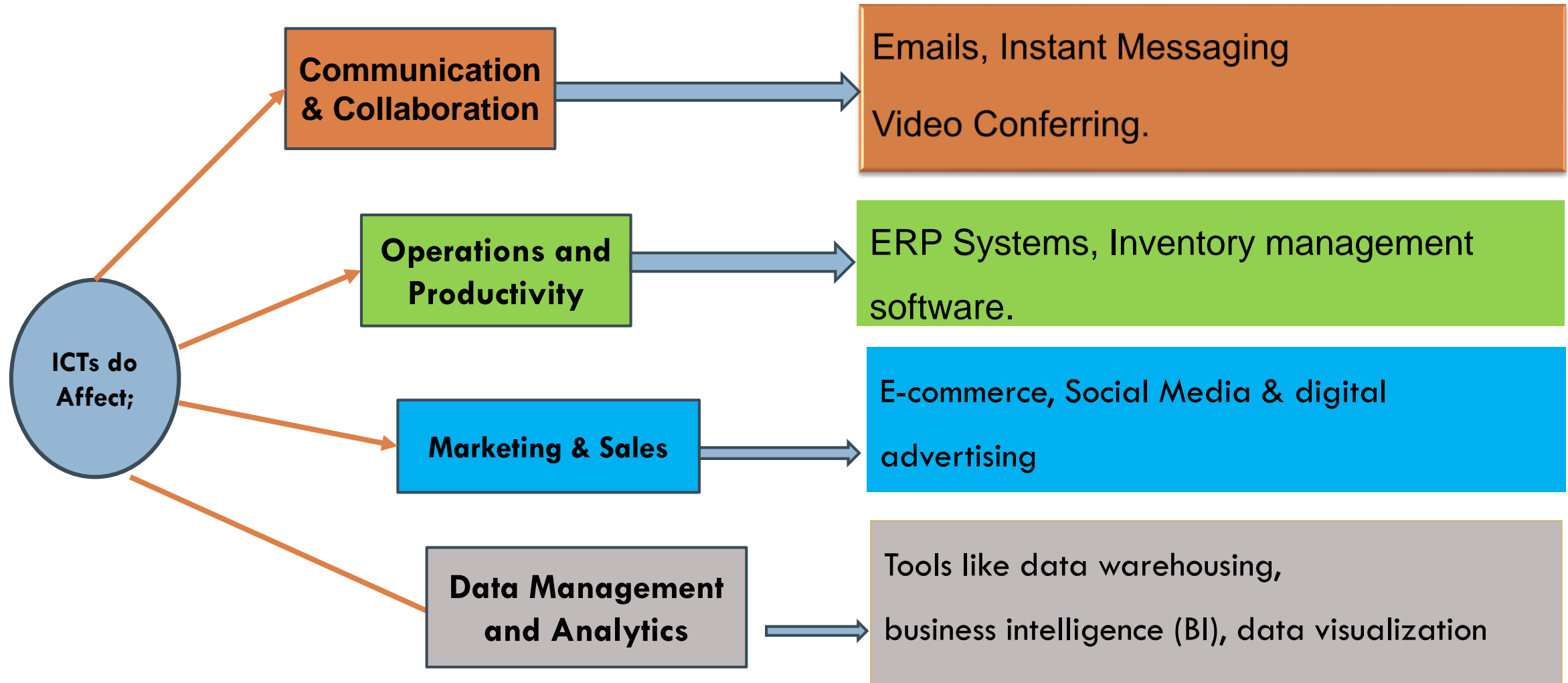
Information and communication technologies (ICTs) are a diverse set of technological tools and resources used to:

- Transmit,
- Store,
- Create and
- Share or exchange information.

These technological tools and resources among others include:

- Computers,
- The internet (Websites, Blogs And Emails),
- Live broadcasting technologies (radio, television and webcasting. etc). [UNESCO Institute for Statistics](#) (2009)

# Glance at ICTs



# Glance at ICTs ++

Information and communication technologies (ICT) based innovations and applications have become major drivers of enhanced organizational performance, economic growth, and social change *([M Yunis](#), [A Tarhini](#), [A Kassar 2018](#))*

# ICTs in organizations

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*What are they in an organization?*

- 1. Classification*
- 2. Adoption*

# ICTs in Organizations

In the organizational context, ICTs encompasses a wide range of computer-based digital systems including:

- Wired and wireless communication media,
- Transaction and information processing, and
- Wireless and internal intranets connected via wireless and external networks.

# ICTs in Organizations ++

- ICT includes all digital technology that assists individuals, businesses and organizations in using information.
- It covers all electronic products that deal with information in a digital form.

E.g. Computers , Software, The Internet, Mobile devices etc.

# ICTs in Organizations ++

- The rapidly changing business environment has led to increased reliance on ICTs to attain and maintain competitiveness, improve profitability, and succeed in today's dynamic market.
- The usage of ICT is defined as the “diverse set of technological tools and resources used to communicate and to create, disseminate, store, and manage information”.

# ICTs and Organizations ++

## 1. Classification of ICTs in Organizations

### 1. Enterprise Systems

(Software system that helps businesses manage and integrate various aspects of their operations)

- Enterprise Resource Planning – ERP & ERP II or XRP
- Customer Relationship Management - CRM
- Supply Chain Management - SCM

### 2. Information Systems:

(Set of tools that work together to manage information for an organization.)

- Transaction Processing Systems - TPS
- Management Information Systems - MIS
- Decision-Support Systems - DSS
- Executive Support Systems - ESS

# ICTs in Organizations ++

## 1. Classification of ICTs in Organizations

### 3. Digital Technologies

E-Commerce (refers to electronic transactions such as procurement and sales over the Internet) – B2B, B2C, B2G

E-Business (refers to automated business processes (both intra-and inter-firm) over computer mediated networks .

# ICTs and Organizations ++

## 1. Classification of ICTs in Organizations

### 4. Telecommunication Systems

Technologies that enabling the transmission of data, voice, and video signals over long distances, facilitating global connectivity and communication between individuals and organizations.)

Internet, e-mail, voice over IP

Local Area Networks

Wide Area Networks

Virtual Private Networks

### 5. Identification and Data Capture

Technologies & Telematics

Technologies

Hand Held Readers, Magnetic & Smart

Card Readers, etc.

# ICTs in Organizations ++

## 2. Adoption and use of ICTs in Organizations

### The technology acceptance model (TAM)

- ▣ The technology acceptance model (TAM) specifies the factors that can lead to better attitudes about the adopted ICT, along with higher acceptance and usage of the technology in a in a given organization.

# ICTs in Organizations ++

## 2. Adoption and use of ICTs in Organizations

The TAM factors include;

1

Perceived  
usefulness  
of the  
technology,

2

The ease  
of its use  
and its  
quality

3

Degree of  
supports of  
its use by the  
organization

# ICTs and Organizations ++

## 2. Adoption and use of ICTs in Organizations

You can determine the actual usage of an ICT by the amount of technology **diffusion** and **infusion**.

### 1. Technology Diffusion

*A measure of how widely technology is spread throughout an organization.*

### 2. Technology Infusion.

*The extent to which technology permeates an area or department.*

# ICTs and Organizations ++

## *Adoption and use of ICTs in Organizations*

- An organization in which computers and information systems are located in most departments and areas has a high level of **technology diffusion**.
- Some online merchants, such as Amazon.com, have a high diffusion and use computer systems to perform most of their business functions, including marketing, purchasing, and billing.

# ICTs and Organizations ++

## *Adoption and use of ICTs in Organizations*

- Some architectural firms, for example, use computers in all aspects of designing a building from drafting to final blueprints. The design area, thus, has a high level of Technology infusion.

# ROLE/IMPORTANCE OF ICTs IN ORGANIZATIONS

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*What is their role or Importance in an organization?*

# Scenario :

Imagine; You're stuck in an office, drowning in paperwork.

Trying to reach colleagues in far places which takes days.

Making informed decisions which feels difficult with limited data.

Thankfully, this doesn't have to be the reality in the current era where there is a transformative power of Information and Communication Technologies (ICTs) in organizations.

# Role/Importance of ICTS in Organizations

## 1. Boosting Efficiency & Productivity

### ➤ **Communication revolution** *(Real-time)*

Tools like email, instant messaging, and video conferencing enable **immediate communication**, regardless of location or time zone.

This eliminates delays and empowers quicker decision-making.

### ➤ **Data as a Powerhouse:** *(Fueling Better Decisions)*

ICTs have transformed organizations into data powerhouses by providing storage solutions like hard drives and cloud storage.

This allows organizations to **archive vast amounts of data**.

# Role/Importance of ICTS in Organizations

## 1. Boosting Efficiency & Productivity

### ➤ Automation for Efficiency (Freeing Up Time for What Matters)

*ICTs are champions of efficiency by enabling the **automation of repetitive tasks**.*

Data entry, scheduling appointments, generating reports. This is by use of ICTs like data processing tools and scheduling software.

When automation happens, employees can focus on tasks like:

- Complex problem-solving
- Client relationship management
- Innovation and strategic planning

Hence organizations achieve a **higher level of efficiency**.

# Role/Importance of ICTS in Organizations

## 2. Collaboration & Innovation

### ➤ Breaking Location Barriers:

#### □ Remote Work Revolution

ICTs empower organizations to embrace **remote work**, enabling employees to work from anywhere with an internet connection. This eliminates geographical limitations for talent acquisition.

□ **Global Collaboration:** Video conferencing, instant messaging, and project management tools bridge time zones and geographical distances. Teams can collaborate seamlessly, **regardless of location**, ensuring projects stay on track

# Role/Importance of ICTS in Organizations

## 2. Collaboration & Innovation

### ➤ Knowledge-Sharing Platforms

- **The Wisdom Hive:** Wikis and Project Management Software: ICTs provide tools like wikis, which function as central repositories for knowledge sharing and document collaboration. Project management software facilitates seamless information sharing within project teams, fostering idea exchange and innovation.

- **Innovation Through Shared Knowledge:** By breaking down knowledge silos and promoting information exchange, ICTs create an environment where ideas can flourish. This leads to a culture of **innovation** and the development of creative solutions.

# Role/Importance of ICTS in Organizations

## 2. Collaboration & Innovation

### ➤ A Global Reach:

- ❑ **Expanding Your Audience:** ICTs empower organizations to connect with a **wider audience** through social media marketing and e-commerce platforms. This allows them to tap into new markets and customer segments globally.

- ❑ **International Collaboration:** ICTs remove geographical barriers to collaboration. Organizations can now partner with international businesses and experts, fostering the exchange of knowledge and expertise on a global scale.

# Role/Importance of ICTS in Organizations

## 3. Enhancing Customer Engagement

### ➤ E-commerce (A Digital Storefront)

- **Global Marketplace:** ICTs empower businesses to create online stores accessible to anyone with an internet connection.

This breaks down geographical barriers and allows businesses to reach a **global market**.

### ➤ Understanding Customers:

This is by Customer Relationship Management (**CRM**) aided with CRM software, an ICT tool that tracks customer interactions, purchases, and preferences.

This data provides valuable insights into customer behaviour.

# Role/Importance of ICTS in Organizations

## 3. Enhancing Customer Engagement

### ➤ **Personalized Marketing & Improved Service:**

By analysing CRM data, businesses can personalize marketing campaigns and tailor offerings to individual customer needs. It also allows for proactive customer service, addressing potential issues and fostering stronger relationships.

# Role/Importance of ICTS in Organizations

## Conclusion

ICTs have become the lifeblood of modern organizations. They have transformed the way organizations function by:

- **Boosting efficiency and productivity .**
- **Enhancing collaboration and innovation.**
- **Improving customer engagement**

Therefore, effective ICT utilization empowers organizations with a significant **competitive edge**. They can operate faster, adapt more effectively, and deliver superior customer experiences.

# References

1. Microsoft. (n.d.). Bing.

[https://www.bing.com/images/search?view=detailV2&ccid=C%2FpeZGZD&id=65C5B44CB9C4304A638A54F24C35C9A83B8727D0&thid=OIP.C\\_peZGZDV6KDhAwqgYdJswHaC2&mediaurl=https%3A%2F%2Fcdn.quantiphi.com%2F2021%2F05%2Fe76ba61a-organizational-change-digital-trans-scaled.jpg&cdnurl=https%3A%2F%2Fth.bing.com%2Fth%2Fid%2FR.0bfa5e64664357a283840c2a818749b3%3Frik%3D0CeHO6jJNUzyVA%26pid%3DImgRaw%26r%3D0&exp=986&expw=2560&q=e76ba61a-organizational-change-digital-trans-scaled.jpg%2B%282560%29%2B%28quantiphi.com%29&simid=608037627442766457&FORM=IRPRST&ck=0AF086AD30DE0AFEBED8CFC266F9812F&selectedIndex=0&itb=0&ajaxhist=0&ajaxserp=0](https://www.bing.com/images/search?view=detailV2&ccid=C%2FpeZGZD&id=65C5B44CB9C4304A638A54F24C35C9A83B8727D0&thid=OIP.C_peZGZDV6KDhAwqgYdJswHaC2&mediaurl=https%3A%2F%2Fcdn.quantiphi.com%2F2021%2F05%2Fe76ba61a-organizational-change-digital-trans-scaled.jpg&cdnurl=https%3A%2F%2Fth.bing.com%2Fth%2Fid%2FR.0bfa5e64664357a283840c2a818749b3%3Frik%3D0CeHO6jJNUzyVA%26pid%3DImgRaw%26r%3D0&exp=986&expw=2560&q=e76ba61a-organizational-change-digital-trans-scaled.jpg%2B%282560%29%2B%28quantiphi.com%29&simid=608037627442766457&FORM=IRPRST&ck=0AF086AD30DE0AFEBED8CFC266F9812F&selectedIndex=0&itb=0&ajaxhist=0&ajaxserp=0)

2. Yunis, Manal, Abbas Tarhini, and Abdunasser Kassar. "The role of ICT and innovation in enhancing organizational performance: The catalysing effect of corporate entrepreneurship." *Journal of Business Research* 88 (2018): 344-356.

3. *Information and communication technologies (ICT) | Unesco IIEP Learning Portal.*

(n.d.). <https://learningportal.iiep.unesco.org/en/glossary/information-and-communication-technologies-ict>



# THANKS

