

ICTs FOR ORGANIZATIONAL TRANSFORMATION



Microsoft. (n.d.). Bing.

Week 6 :
ICT implementation strategies, challenges
and best practices

#Challenges and best practices

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ICTs for Organizational Transformation. Week Six (Lecture Six).

Agenda

1.

Flash back of the previous Lecture 5.

2.+

ICT implementation strategies, challenges and best practices

Challenges and best practices

- Challenges
- Best Practices

Flash back to the previous Lecture 5

ICT implementation strategies.

1. Needs assessment
2. Technology selection.
3. Change management.
4. Evaluation and monitoring.

ICT Implementation Challenges and best practices- Over View

There Several challenges that can arise during ICT implementation in Organization, So it is important to;

- Identify the potential hurdles that might be encountered in the processes of Implementation.
- Know the best practices to ensure a smooth and successful Implementation.

ICT Implementation Challenges and best practices- Over View

Challenges of ICT Implementation:

- Identify common roadblocks you might face when introducing new .

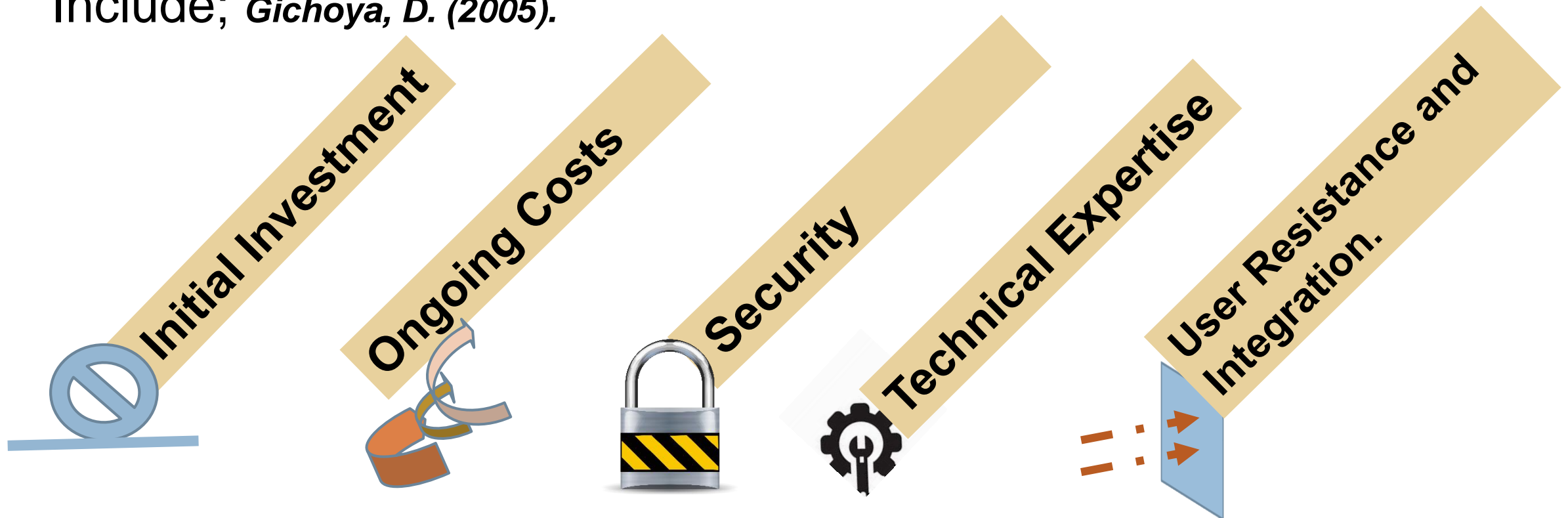
Understanding these challenges will equip one to anticipate and navigate them effectively.

Best Practices for ICT Implementation:

- Focus on the strategies that make ICT implementation a triumph.
- Approaches to be used in the implementation
- Security' Best practices for safeguarding data and systems

ICT Implementation Challenges

Implementing ICT come with challenges which among other may Include; *Gichoya, D. (2005).*



ICT Implementation Challenges:

Initial Investment:

1. Initial Investment:

- **Hardware:** Purchasing computers, servers, network devices, and any specialized equipment required for the chosen technology.
- **Software:** Licensing fees for the core technology software, operating systems, and any additional software needed for functionality.
- **Implementation costs:** Costs associated with professional services for installation, configuration, and customization of the technology.

ICT Implementation Challenges:

Initial Investment:

Initial Investment:

- **Infrastructure development:** Costs of setting up the physical infrastructure, including network cabling, power supply upgrades, and cooling systems.
- **Training:** Costs associated with developing and delivering training programs for staff and users on the new technology.

ICT Implementation Challenges:

Initial Investment:

Initial Investment:

- **Maintenance:** Regular maintenance of hardware and software to ensure smooth operation and address technical issues.
- **Software upgrades:** Costs associated with purchasing upgrades to the core technology software or additional features as needed.
- **Subscription fees:** Many software solutions now operate on a subscription model, with ongoing annual or monthly fees

ICT Implementation Challenges:

Initial Investment:

Initial Investment:

- **Technical support:** Costs associated with ongoing technical support from vendors or internal IT staff.
- **User support:** Costs associated with providing ongoing support to users as they adapt to the new system.

ICT Implementation Challenges:

Ongoing Costs:

2. Ongoing Costs:

- **Maintenance:** Regular maintenance of hardware and software to ensure smooth operation and address technical issues.
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ICT Implementation Challenges:

Ongoing Costs:

Ongoing Costs:

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ICT Implementation Challenges: Managing Costs:

Strategies for Managing Costs:

- **Cost-benefit analysis:** Conduct a thorough cost-benefit analysis to evaluate the return on investment (ROI) of the proposed ICT implementation.
- **Open-source software:** Consider using open-source software alternatives whenever possible to reduce licensing costs.
- **Cloud-based solutions:** Cloud-based solutions can offer a pay-as-you-go model, reducing upfront hardware and infrastructure costs.

ICT Implementation Challenges: Managing Costs:

Strategies for Managing Costs:

- **Phased implementation:** Implement the ICT solution in phases, starting with core functionalities and scaling up based on needs and budget.
- **Total cost of ownership (TCO):** Consider the TCO, which includes all costs associated with the technology over its entire lifecycle, not just the initial investment.

Considering these cost factors and implementing appropriate cost-saving strategies can inform decisions during the ICT selection and implementation process.

ICT Implementation Challenges: Security

3. Security

- **Staying Ahead of Evolving Threats** - The cyber security landscape constantly shifts, demanding continuous threat assessment to identify emerging risks.
- **Building a Robust Security Architecture** - Creating a layered security system with firewalls, intrusion detection, data encryption, and access controls is vital, but can be challenging to design and maintaining such a complex architecture.
- **Keeping with Patching** - Regular vulnerability scanning and patching is essential, but keeping pace with the ever-increasing number of vulnerabilities can be a constant struggle.

ICT Implementation Challenges: Security

Security

- **Protecting Sensitive Data** - Implementing robust data security measures like user authentication, encryption, and backup/recovery procedures is crucial, but managing these measures effectively presents an ongoing challenge.
- **Ensuring User Awareness** - Educating staff and users on cyber security best practices such as strong passwords and phishing awareness is essential, but overcoming human error and achieving consistent user vigilance can be difficult.
- **Maintaining Compliance with Regulations** - Navigating the ever-changing world of data privacy regulations and ensuring your security measures comply is a complex and ongoing challenge.

ICT Implementation Challenges: Technical Expertise

Technical Expertise

Implementing and maintaining complex ICT systems often requires specialized technical skills.

To address this challenge the following can be done:

- **Skills gap analysis:** Assess the existing technical skills within your organization and identify any gaps related to the chosen technology.
- **Hiring or training:** Consider hiring IT professionals with the necessary skills or invest in training existing staff to develop the required expertise.

ICT Implementation Challenges: Technical Expertise

Technical Expertise

- **Outsourcing:** Partner with a managed service provider (MSP) or other external vendors to handle specific aspects of ICT implementation and maintenance.
- **Vendor support:** Leverage the expertise offered by technology vendors through support services and training programs.

ICT Implementation Challenges: User Resistance

User Resistance

People are often resistant to change, and implementing new ICT systems can disrupt established workflows. Here's how to address user resistance:

- **Communication and transparency:**
- **Change management strategy:**
- **User involvement:**
- **User champions:**
- **Training and support:**

ICT Implementation Challenges: Integration Challenges

Integration

Integrating new ICT systems with existing ones can be complex and requires careful planning. Here's how to overcome integration challenges

- **Data mapping:** Define how data will flow between the new and existing systems. This includes identifying data formats, standards, and any necessary data transformation.
- **Interface development:** Develop APIs (Application Programming Interfaces) or other mechanisms to enable communication and data exchange between systems.

ICT Implementation Challenges: Integration Challenges

Integration

- **Testing and validation:** Thoroughly test the integration between the new and existing systems to ensure data accuracy and seamless functionality.
- **Data migration strategy:** Develop a data migration strategy to transfer data from existing systems to the new system with minimal disruption.
- **Standardization:** Promote the use of standardized data formats and protocols to facilitate easier integration with future systems.

ICT Implementation Best Practices

Integration

- Successful ICT integration often involves collaboration between various teams:
- **Business analysts:** Understand user needs and workflows to ensure the new system integrates effectively with existing processes.
- **IT specialists:** Possess the technical expertise to develop interfaces and configure integrations.
- **Data architects:** Design the data flow and transformation strategies for seamless data exchange.

ICT Implementation Best Practices *Waring, A. (2021)*

Best Practices: Stakeholder Engagement and Piloting

1. Stakeholder Engagement: Building Buy-In

- **Identify key stakeholders:** This includes staff, users from different departments
- **Understand stakeholder needs and concerns:** Conduct interviews, workshops, or surveys to gather input from each stakeholder group.

ICT Implementation Best Practices

Best Practices: Stakeholder Engagement

- **Communicate benefits and value proposition:** Clearly articulate how the ICT implementation will benefit each stakeholder group
- **Develop a communication strategy:** Outline different communication channels to reach each stakeholder group effectively.
- **Establish a steering committee:** Form a committee with representatives from various departments.

ICT Implementation Best Practices

2. Piloting for Success

Begin with a pilot project to:

- ▣ Test the technology in a controlled environment.
- ▣ Identify and address any technical challenges or user issues before wider implementation.
- ▣ Refine training materials and support structures based on pilot user experiences.
- ▣ Build confidence and excitement for the broader implementation.

ICT Implementation Best Practices

3. Develop a Clear Communication Plan:

- **Define communication objectives:** Clearly outline what you want to achieve through your communication plan.
- **Identify target audiences:** Segment your stakeholders into different groups based on their needs and level of involvement. This ensures targeted messaging for each group.
- **Choose the right communication channels:** Utilize a variety of communication channels to reach your audience effectively.

ICT Implementation Best Practices

Develop a Clear Communication Plan:

- **Maintain transparency:** Be open and honest about the project's progress, goals, challenges, and timelines. Address potential concerns proactively and provide regular updates on the implementation process.
- **Promote two-way communication:** Encourage feedback from stakeholders through surveys, suggestion boxes, or open forum discussions. This helps to address concerns and improve the implementation process.

ICT Implementation Best Practices

3. Provide Adequate Training:

- **Needs assessment:** Identify the specific training needs of different user groups.
- **Develop diverse training materials:** Offer a variety of training options to cater to different learning styles.

Example

- ▣ Instructor-led classroom sessions
- ▣ User guides and quick reference materials

ICT Implementation Best Practices

4. Focus on Security:

- **Conduct a security risk assessment:** Identify potential security threats and vulnerabilities associated with the new technology and the data it handles.
- **Implement robust security measures:** This includes firewalls, intrusion detection systems, data encryption, and access controls to safeguard sensitive information and systems.

ICT Implementation Best Practices

3. Focus on Security:

- **Develop security policies and procedures:** Establish clear policies outlining acceptable use of the technology, password management protocols, and incident response procedures.
- **Regular security audits:** Conduct regular security audits to identify and address potential vulnerabilities before they can be exploited.
- **Security awareness training:** Educate staff and users on cyber security best practices, such as phishing awareness and password hygiene.

Conclusion

Navigating of ICT implementation involves understanding and addressing a range of challenges while embracing best practices by fostering adaptability, investing in training, and prioritizing stakeholder engagement, organizations can maximize benefits and mitigate risks. Success lies in collaboration, flexibility, and continuous improvement.

Summary's

Challenges and best practices

Challenges

- Initial Investment:
- Ongoing Costs:
- Security
- Technical Expertise
- User Resistance
- Integration Challenge

Best Practices

- Piloting for Success
- Develop a Clear
Communication Plan
- Provide Adequate Training:
- Focus on Security

References

1. Gichoya, D. (2005). Factors affecting the successful implementation of ICT projects in government. *Electronic Journal of E-government*, 3(4), pp175-184.
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THANKS

