3.5 Conducting a Technology Audit

Description:

This tool provides an overview of benefits and outlines steps to be taken when conducting a technology audit.

How it can be used:

Providing effective health services requires some form of technology. However, it can be difficult to stay on top of your organization's technology needs in addition to the ongoing and pressing requirements of administering a health organization.

A technology audit is a method used to identify key organizational requirements, needs, weaknesses and strengths related to technology in both human resources and infrastructure. It will provide a clear picture of your organization's strengths and also the gaps in technology, and will identify priorities for action. Using this tool will help you formulate a plan so that the technology audit will be more effective.

Why conduct a technology audit?

- To show how technology is being used and whether or not it is being integrated into daily functions
- To confirm the effectiveness of existing technology
- To examine how technology is affecting the way the centre provides services
- To identify barriers that are preventing the effective use of technology
- To provide information on how staff feel about using technology
- To improve the productivity of technological factors of the services
- To assess current capabilities before making expensive changes
- To learn how to optimise the use of current technology
- To learn about technology options
- To assess and recommend technological changes to key partners (such as Band Leaders or Health Board)

How to conduct a technology audit?

The main steps of a technology audit process are:

1. **Decide:** Ensure you have buy-in.
   a. Confirm that there is leadership agreement regarding the need to carry out a technology audit. (e.g., with Band leaders, Health Board, Health Committee)

2. **Discuss:** This helps the process proceed more smoothly and effectively.
   a. Hold discussions with key leaders to agree on the purpose of the audit.
   b. Modify the questionnaire and the framework for the report to suit your needs.
   c. Select those to be interviewed.

3. **Discover:** Collect data through a variety of means that reflect the work of your centre.
   a. Review the physical network, conduct surveys, questionnaires, interviews, and focus groups.
   b. Examine the current technology plan.
      i. Does the design of the network provide sufficient connectivity capacity for the users?
      ii. Are processes in place to protect the system in case of a catastrophic event?
      iii. Is the security adequate to ensure protection of our information?
      iv. Are computers adequately configured to support the work activities of users?

Source: First Nations Health Managers Association. *Knowledge Circle*. www.fnhma.ca.

     v. Are there adequate and trained technical personnel to support the systems and end users?

     vi. Are there processes in place to ensure smooth deployment of software and hardware?

     vii. What planning processes are in place for the upgrade of hardware and software so our organization can stay technologically current?

     viii. How do the technology support personnel communicate to the leadership about future directions and/or any challenges they encounter?

     ix. Are the users comfortable with the technology? What is the level of expertise? Is more training required? What are the barriers to users fully maximizing the technology?

     x. Are there any discrepancies between what people say and what is evident when walking through the organization?

     xi. Could any older IT or paper-based systems be improved by technological changes?

     xii. Are individuals hampered in their search for information by a slow or unsatisfactory network? Would this situation be alleviated by a systems upgrade?

c. Conduct a Technology Needs Assessment.
     i. What are the current technological needs of our organization?
     ii. Do we currently meet these needs?
     iii. What are the future technological needs of our association?
     iv. Will we be in a position to meet these needs?
     v. Which of our current technologies are stand-alone and which are integrated?
     vi. Could any cost or efficiency benefits be obtained by integrating stand-alone systems?
     vii. Could pay-back times be calculated for desired technology upgrades?

d. Review the Infrastructure.
     i. Does our current infrastructure meet the most basic requirements of our technological needs?
     ii. Do we need to expand our infrastructure in the next one to three years?
     iii. Do we have the resources to expand our infrastructure (e.g., budget, personnel)?
     iv. Would the organization benefit from a system that helps people gather knowledge from a data warehouse?

e. Assess the Hardware.
     i. Do we have sufficient hardware to meet our current technological needs?
     ii. Do we have sufficient hardware to meet our future technological needs?
     iii. Do we have the capacity to expand our hardware (e.g., budget, personnel)?
     iv. Does our current hardware support user needs (e.g., data accuracy and completeness, output content and quality, data currency, special reports)?
     v. Does our current hardware meet our needs in terms of design? Maintainability? Operability? System reliability?

f. Review the Software.
     i. Do we have sufficient software to meet our current technological needs?
     ii. Do we have sufficient software to meet our future technological needs?
     iii. Do we have the capacity to expand our software (e.g., budget, personnel)?
     iv. Does our current software support user needs (data accuracy and completeness, output content and quality, data currency, special reports)?
     v. Does our current software meet our needs in terms of design? Maintainability? Operability? System Reliability?

g. Assess the Training.

        i. Are all staff members trained in the use of all hardware? If not, what percentage meets this requirement?
        ii. Is there a need for further training of staff in the use of hardware? If yes, is there capacity to upgrade the training of staff (e.g., budget, personnel)?
        iii. Are all staff members trained in the use of all software? If not, what percentage meets this requirement?
        iv. Is there a need for further training of staff in the use of software? If yes, is there capacity to upgrade the training of staff (e.g., budget, personnel)?

4. **Define** – Analyze the data.
   a. Look for common themes.
   b. Verify and clarify statements.

5. **Describe** – Prepare the report.
   a. The final report of the technology audit should include:
      i. Subjects that were analyzed.
      ii. Methodology that was used.
      iii. Problem areas that were identified.
      iv. Solutions proposed to the problems.
      v. Steps to be taken for implementing the solutions – the action plan.

   b. Results from a carefully conducted technology audit are expected to be:
      i. A complete and comprehensive analysis and evaluation of the requirements of the organization to ensure sustainable growth.
      ii. A thorough and impartial Strengths/Weaknesses/Opportunities/Threats (SWOT) analysis.
      iii. Identification of new products/services/technologies that could address issues.
      iv. Improved connections and networking with technology suppliers, technological sources, and other companies.
      v. A possible assessment of the intellectual property rights (if applicable).

6. **Disseminate** – Share the information and create a plan.
   a. When the technology audit is completed, either create a new plan or revise the current plan.
   b. An effective technology plan should always demonstrate how it supports the vision and strategic goals of the organization.
   c. Consider the implications of a change plan as part of the technology plan (to help introduce new technologies).
   d. Always integrate the necessary professional development support for all personnel.