

Managing Information in Organizations

Sharon A Cox

Chapter 12 Changing Information Technology

Link 12.2 Answers to Cloze Exercise 12.1

An IT system comprises a number of components to implement an INFORMATION SYSTEM. It provides the HARDWARE and software to capture, store, transmit, and process data securely. Changes to an IT system may be needed due to breakdown or OBSOLESCENCE of equipment. Mandatory changes to IT may be required to satisfy REGULATORY requirements and industry standards. Other changes to IT may be implemented to improve the efficiency and effectiveness of existing information processes to support development of competitive ADVANTAGE.

Upgrading IT equipment may increase the CAPACITY of data that can be stored and processed but may also require changes to be made to data structures and formats. MIGRATION refers to the transfer of data from one IT device to another. The process provides the opportunity to CLEAN data before data are converted and transferred to the new device. When the data have been LOADED into the new IT, VERIFICATION is needed to check that all the data have been transferred correctly.

An application PACKAGE is a set of software programs that can be purchased to perform business functions. Proprietary software is CLOSED source software where the program code is the intellectual property of the vendor. OPEN source software is developed by a community of software developers who make the program code available for others to modify and improve. When purchasing software the initial stages of information systems development are still needed to determine the INFORMATION, functional, and nonfunctional requirements of the software. Potential software that may satisfy the organization's requirements is thoroughly EVALUATED. It is unlikely that PROPRIETARY software will exactly meet the organization's requirements and compromises may need to be made. The extent of changes to the information RESOURCE needed to accommodate the software package must be thoroughly investigated. This includes assessing the impact on information INTEGRATION.

Barriers to information integration in the enterprise architecture can be PEOPLE-related and technology-related. Technical INTEROPERABILITY refers to the need for IT devices to work together. PROTOCOLS are needed which define rules to standardize data communication between IT. A LEGACY system evolves over time as systems are maintained to meet the needs of the organization. The systems become more complex and can become a BARRIER to organizational change.

Although it may be cheaper to replace such systems rather than maintain them, this can be difficult, so a [WRAPPER](#) may be developed around the system. This enables it be integrated as a component in a new information system. Proposals to change IT can affect the future flexibility of the IT architecture and may hinder the ability to [ACCESS](#) information needed by the organization.