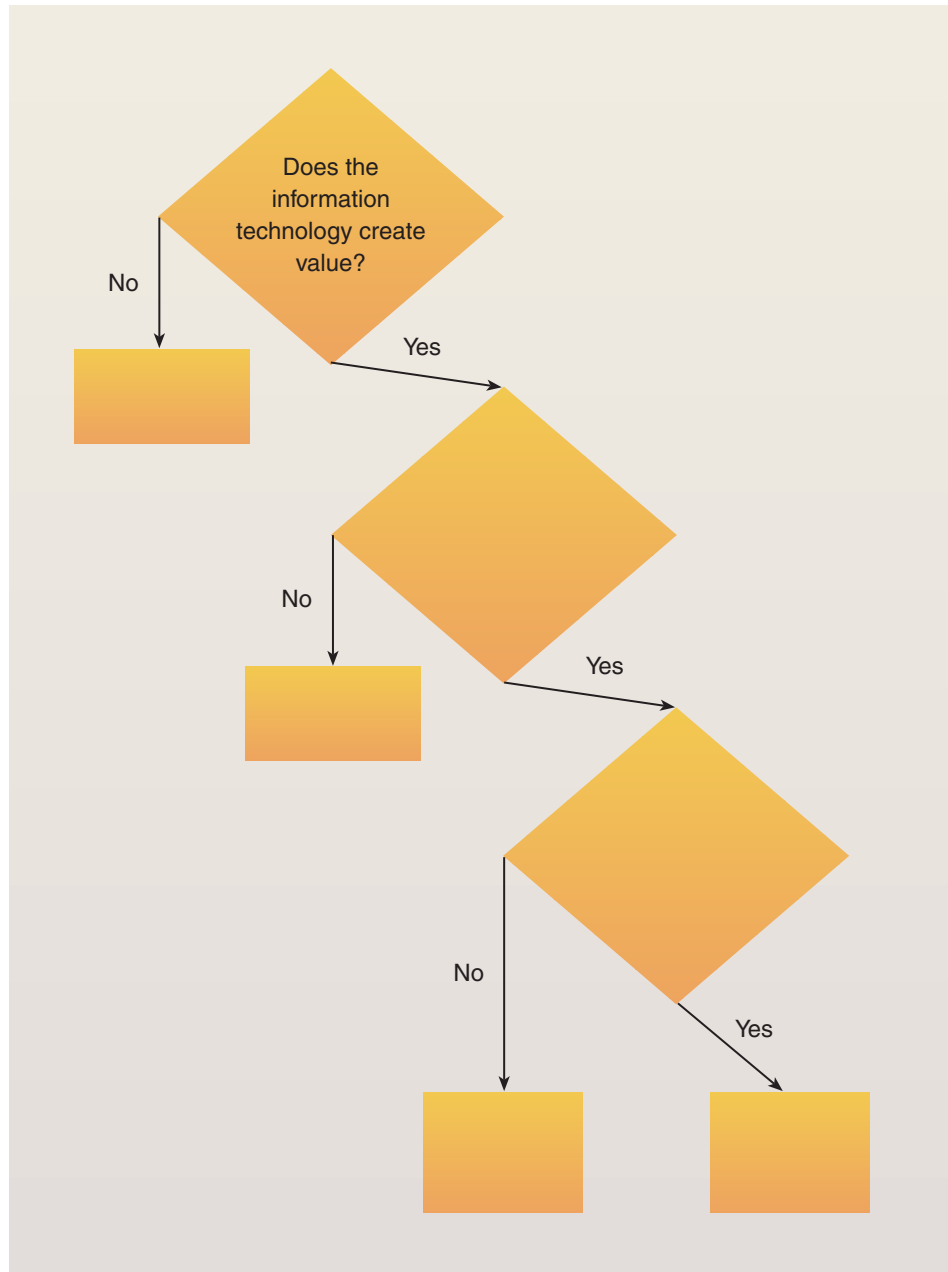


USING INFORMATION TECHNOLOGY TO SUSTAIN A COMPETITIVE ADVANTAGE



**Source:** Adapted from F.J. Mata, W.L. Fuerst, & J.B. Barney, "Information Technology and Sustained Competitive Advantage: A Resource-Based Analysis," *MIS Quarterly*, December 1995, 487-505.

**INSTRUCTIONS**

Complete the flow chart following your response to the primary question. Diamonds represent further question; and rectangles represent final results.

ADVANTAGES AND DISADVANTAGES OF DIFFERENT KINDS OF DATA STORAGE DEVICES

DATA STORAGE MEDIUM	ADVANTAGES	DISADVANTAGES
1. Paper	•	• • • •
2. Microfilm—picture of the data is stored on a small photographic slide	• • •	• • •
3. CDs—hold 650 megabytes of data	• • •	• •
4. DVDs—hold 4.7 gigabytes of data	• • •	• • •
5. Data Storage Tapes—magnetic tapes used to archive data for long-term storage	• • •	• •
6. Hard Drives—magnetic disks that read and write (store) data	• • •	• • •
7. RAID—redundant array inexpensive disk system	•	• •
	•	
	•	
	•	

**INSTRUCTIONS**

List the advantages and disadvantages to each type of data storage medium.

## SECURITY THREATS TO DATA AND DATA NETWORKS

SECURITY PROBLEM	SOURCE	AFFECTS	SEVERITY	THE THREAT	THE SOLUTION
Denial-of-service Web server attacks and corporate network attacks	Internet hackers	All servers		Loss of data, disruption of service, and theft of service.	
Unauthorized access to PCs	Local area network, Internet	All users, especially digital subscriber line and cable Internet users		Hackers take over PCs. Privacy can be invaded. Corporate users' systems are exposed to other machines on the network.	
Viruses, worms, Trojan horses	Email, downloaded and distributed software	All users		Monitor activities and cause data loss, file deletion, and compromise security.	
Malicious scripts and applets	Rogue Web pages	All users		Invade privacy, intercept passwords, and damage files or file system.	
Email snooping	Hackers on your network and the Internet	All users		People read your email from intermediate servers or packets, or they physically access your machine.	
Keystroke monitoring	Trojan horses, people with direct access to PCs	All users		Records everything typed at the keyboard and intercepts keystrokes before password masking or encryption occurs.	
Referrers	Web sites you visit	Individual users		Send email notification of your web activity.	
Spam	Email	All users and corporations		Clogs email servers and inboxes with junk mail. HTML-based spam may be used for profiling and identifying users.	
Cookies	Web sites you visit	Individual users		Trace Web usage and permit the creation of personalized Web pages that track behavior and interest profiles.	

Source: "Protect & Defend," B. Machrone, *PC Magazine*, 27 June 2000, 168-181.

## INSTRUCTIONS

Rank the severity of each of the security problems listed in the first column as mild, moderate, high, or overestimated. Then, outline possible solutions to the threats listed to complete the chart.

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WHY 80 PERCENT OF COMPANIES NOW USE INTRANETS

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1.

2.

3.

4.

5.

6.

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**INSTRUCTIONS**

List six reasons why companies use Intranets.