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| **M7** | **The World Wide Web** |

**World Wide Web** - system of interlinked documents that accessible on that network called the Internet

**Webpages** - documents hosted on web servers

**Hyperlinks** - webpages usually contain links to other pages

↳ located on web servers around the Internet

**Website** - webpages that’s grouped together

**Uniform Resource Locator (URL)** - web address that allows access to webpage

**Hypertext Transfer Protocol (HTTP)** - set of rules governing the internet

↳ dictates how webpage should be transferred across the network

↳ protocol used to request webpages from a web server and for secure web transactions, such as making purchases over the Internet

**File Transfer Protocol (FTP)** - used to transfer large files between user’s computer and special type of server called an **FTP server**



Server Name

Registered Domain Name

Top-Level Domain Name

**Server name** - identifies name of the server

**Domain name** - unique web address in descriptive alphanumeric form which understandable by users

↳ identifies the location of a webpage

↳ typical domain name consists of three labels separated by periods or dots

**Registered Domain Name** - identifies the **organization** that owns the domain name

**Top-level Domain Name** - identifies the **category** of the registered domain name

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| **M8** | **Cybercrime and Enterprise Computing** |

**Cybercrime** - unauthorized use, modification, destruction of data/computer system

↳ composed of broad range of criminal activities

↳ categorized by types of crimes that aim computers and networks, carried out by the use computers and networks

**Reasons behind Cybercrime**

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| **Page** | **1** |

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| **1** | Money |
| **2** | Information |
| **3** | Thrill/Challenge |
| **4** | Theft of Service/Product |
| **5** | Revenge |
| **6** | Competition |

**Cybercriminals** - computer literate individuals who conduct deliberate attacks on personal computers and networks

**Different Types of Cybercriminals**

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| **1** | **Hacker** |
| breaks into security system of personal computers/networks  **Ethical hackers** - assigned to penetrate organizations security system to assess its strengths and locate its weaknesses |
| **2** | **Cracker** |
| violates, destroys, vandalizes and exploits networks and personal computers  ↳ commonly mistaken with hackers, underground groups that many organizations and individuals fear  **Software cracking** - modification of an application behavior  ↳ can be in form of altering a program features, activating an application with fake serial key, removing software protection, or adding and removing features from the application |
| **3** | **Insider (Whistleblower)** |
| someone who’s a member of a restricted group and hold deep knowledge of the group’s activities  ↳ great threat to any organization or institution |
| **4** | **Fraudster** |
| person who attempts to present falsified information or misrepresent information by means of computer to gain money, service or benefits |
| **5** | **Cyber stalker** |
| trace and follows an individual’s or a group’s activities and invade their privacy online  **Cyber stalking** - can be other forms such as online harassment, threats, identity theft, email attacks or false accusations |
| **6** | **Cyber terrorist** |
| intend to gain socio-political advantage by launching attacks on information, computers and networks in large scale institutions |

**Enterprise Computing** - commonly describes a business or venture of any size

↳ use of computers in networks, such as LANs and WANs, or series of interconnected networks that encompass a variety of different operating systems

**Information System** - set of hardware, software, data, people and procedures that work together to produce information

↳ mechanism that helps people gather data, store and organize them to produce meaningful information

**Enterprise Information** - information gathered in the ongoing operations of enterprise-sized organization

↳ begins with the day-to-day transactions that occur within a company, such as sales receipts or time-cards

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| **M9** | **Artificial Intelligence and Information System** |

**Artificial Intelligence** - study of how to make computers do things what the human beings can do, the study of the computations

**Two approaches to AI**

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| **1** | Attempt to use computers to emulate human mental processes |
| **2** | Involves on designing intelligent machines that are independent from how the people think  This approach considers that human intelligence is just one possible kind of intelligence |

**Expert System** - software program **designed to emulate the decision-making** process of human expert

**An expert** - person who has great amount of knowledge and skills on a particular field of study or profession

**Advantages of Expert System**

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| **1** | Can **reduce the number of human errors**, **provide expertise** when experts are not available and make knowledge available to more people |
| **2** | Can also **train new employees**, **preserve knowledge of experts** after those experts leave the company and take care of routine-tasks so that the workers can concentrate on jobs that need human interaction and understanding |

**Pattern Recognition** - involves **identifying** **recurring patterns** in input data with goal of categorizing or understanding that data

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**Application of pattern recognition** - includes face identification, hand writing recognition and finger print identification

**Image analysis** - process of identifying shapes and objects in an image, picture, drawing or video

↳ applied in piloting cruise missiles, and colorizing old motion pictures

**Speech Recognition Software** - allows computer to follow command through our voice

**Neural Networks** - artificial brain that emulates the actual human brain

**Robotics Technology** - computer-controlled machines that designed to perform specific and routinely manual tasks

**Management Information System (MIS)** - enables managers to decide effectively on how to manage the business by knowing the company’s financial status

**Decision Support System (DSS)** - enables managers to become effective decision makers on the companies’ daily operation strategies and tactics

↳ used to access and analyze data in the company’s transaction processing system

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| **Disclamer** | |
| ⚠ | **This document might have some typos**  **If you see one, tell Drew :>**  **Some information here could be incorrect, if you suspect one, please do double-check** |