

Some definitions

- **Computer Literacy**
 - Knowing how to use a computer
- **Digital Divide**
 - That gap between those with computer access and those who don't have it
- **Computer Ethics**
 - Standards of conduct as they pertain to the use of information systems

Some definitions

- Privacy
 - Protecting one's personal information
- Identity theft
 - Stealing of another's social security number رقم الضمان الاجتماعي, credit card number, or other personal information
- Information accuracy
 - Deals with authentication توثيق and fidelity of information

Some definitions

- Information property
 - Deals with who owns information about individuals and how information can be sold and exchanged
- Information accessibility
 - Deals with what information a person has the right to obtain about others and how the information can be used

Computer Crime

- Definition: the act of using a computer to commit an illegal act
 - Authorized به مصرح and unauthorized به غير مصرح computer access
 - Examples
 - Stealing time on company computers
 - Breaking into government Web sites اختراق المواقع الحكومية
 - Stealing credit card information سرقة معلومات بطاقة الائتمان

Computer Crime

- Computer crime forms

- Stealing or compromising data المساومة على
- Gaining unauthorized computer access الحصول على وصول غير مصرح به للكمبيوتر
- Violating data belonging to banks انتهاك البيانات الخاصة بالبنوك
- Intercepting communications اعتراض الاتصالات
- Threatening to damage computer systems التهديد بتعطيم أنظمة المعلومات
- Disseminating viruses نشر الفيروسات

Computer Crime

- Hacking and Cracking
 - Hacker – one who gains unauthorized computer access, but without doing damage ولكن دون أن يحدث أي ضرر
 - Cracker – one who breaks into computer systems for the purpose of doing damage الشخص الذي يقتحم أنظمة الكمبيوتر بغرض إلحاق الضرر

Computer Crime

- Hacking الاختراق
 - White-hat or “sneakers”
 - Attempt to find security holes in a system to prevent future hacking معرفة الثغرات الأمنية لتجنب اختراقها في المستقبل
 - Black-hat or “crackers”
 - Malicious intent نية خبيثة
 - Gray-hat
 - Illegal but not malicious intent غير قانوني ولكن بدون نية خبيثة

Computer Crime

- Software piracy
 - North America – 25%
 - Western Europe – 34%
 - Asia / Pacific – 51%
 - Mid East / Africa – 55%
 - Latin America – 58%
 - Eastern Europe – 63%

Computer Crime

- Computer viruses and destructive code
فيروسات الكمبيوتر والشفرات المدمرة
 - Virus - a program that replicates itself and infects computers
 - Virus - a destructive program that disrupts the normal functioning of computer systems
 - ✓ Needs a host file
 - ✓ May use an email program to infect other computers

Computer Crime

- Computer viruses and destructive code
 - Types:
 - Worm: usually does not destroy files; copies itself
الدودة: عادة لا تدمر الملفات. ينسخ نفسه
 - Trojan horses: Activates without being detected; does not copy itself
أحصنة طروادة: تنشط دون أن يتم اكتشافها ؛ لا ينسخ نفسه

Computer Crime

- Computer viruses and destructive code

- Types:

- Logic or time bombs: A type of Trojan horse that stays dormant for a period of time before

- activating, Does not replicate : القنابل الزمنية أو المنطقية :
نوع من أحصنة طروادة التي تظل نائمة لفترة من الوقت قبل التنشيط

- Logic Bomb (Attacks when certain conditions are met

- (الهجمات عند استيفاء شروط معينة

- Time Bomb (Attacks in a specific time or date في وقت أو

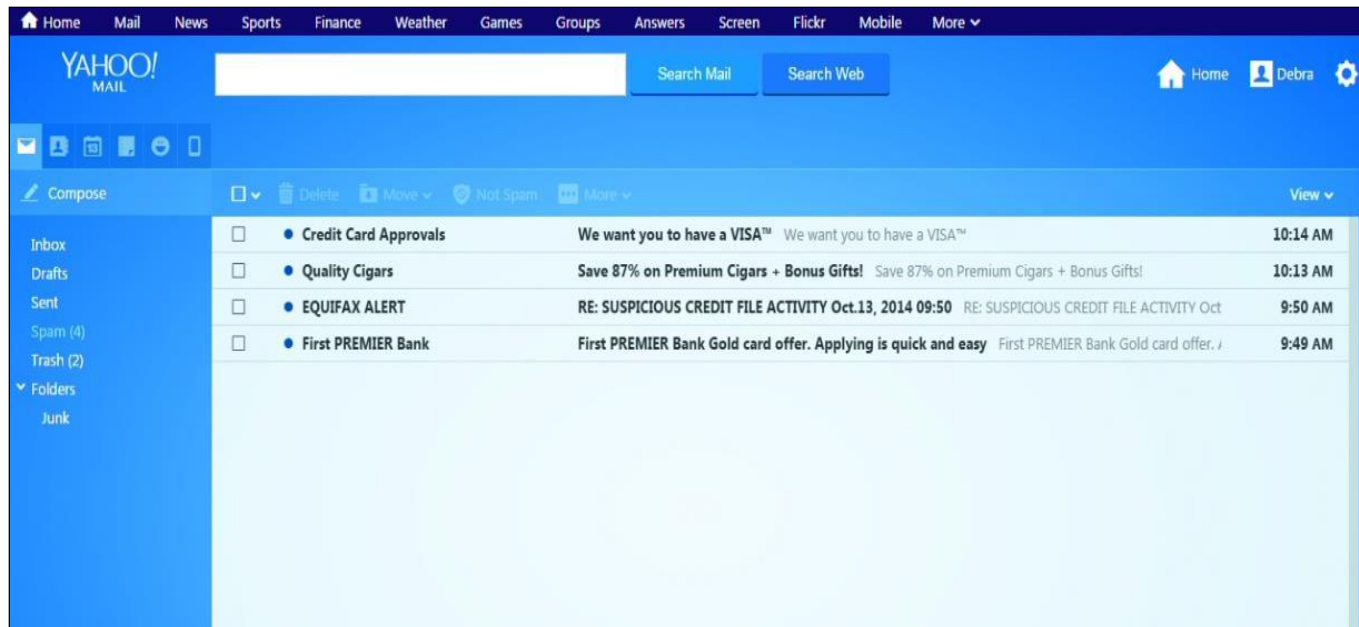
- April Fool's Day, Friday the 13th تاريخ محدد

Computer Crime

- Spam

✓ Spamming is sending mass unsolicited جماعي مزعج emails

✓ Messages are called spam



Computer Crime

- ملفات تعريف الارتباط Cookies
 - ✓ Installed without your permission إذن
 - ✓ Help websites identify you when you return
 - Track websites and pages you visit to better target ads الاعلانات
 - May collect information you don't want to share

Computer Crime

- Adware

- ✓ Pop-ups النوافذ المنبثقة or banner ads الإعلانات الاعلانية
- ✓ Generate income
- ✓ Reduce PC performance

- Spyware

- ✓ Malware
- ✓ Secretly gathers personal information
- ✓ Usually installed by accident
- ✓ Browser hijacker

Computer Security

- Computer Security – precautions taken to keep computers and the information they contain safe from unauthorized access
- Internet Security
 - Firewall – hardware and software designed to keep unauthorized users out of network systems

Computer Security

- Virus prevention
 - Install antivirus software
 - Make backups
 - Avoid unknown sources of shareware
 - Delete e-mails from unknown sources
 - If your computer gets a virus...

Computer Security

- Antivirus program
 - Protects against viruses, Trojans, worms, spyware
 - Windows 10 includes Windows Defender
 - An antispyware program that performs both real-time protection and system scanning
- Antispyware software
 - Prevents adware and spyware from installing يمنع تثبيت برامج الإعلانات وبرامج التجسس

Computer Security

- Protect yourself from downloading problems
 - ✓ Only download from reliable sources
- How to maintain your privacy online
 - Choose Web sites monitored by privacy advocates
 - Avoid “cookies”
 - Avoid Visiting sites anonymously تجنب زيارة المواقع مجهولة
 - Use caution when requesting confirming e-mail توخي الحذر عند طلب تأكيد البريد الإلكتروني



Creating Strong Passwords

Use a mixture of upper- and lowercase letters, and at least one number

uPLo

!@#\$

Use at least eight characters, with at least one special character

Don't use any words that can be found in a dictionary and don't use anything personally identifiable

~~Fido~~

**~~pass
word~~**

Always change default passwords and use different passwords for different accounts

Computer Security

- Encryption – the process of encoding messages before they enter the network or airwaves, then decoding them at the receiving end of the transfer
- عملية تشفير الرسائل قبل دخولها إلى الشبكة أو الموجات الهوائية ، ثم فك تشفيرها في الطرف المتلقي للنقل

