Cyber Crime

Definition:	Example:
- criminal / illegal activity - involves unlawful access to computer system - committed on internet - steals data/information	- Stealing credit card information - Breaking into government website

History:

1st cybercrime: - France, 1820 - person details: Name: Joseph Manie Job; textile engineering	1st spam email - 1978	1st virus: - Installed on Apple Computer - 1982

Category of Cyber Crimes Device as		Types of Cyber Crimes (Based on Victims)	Cause	Characteristics
Target Use computer to attack another one Ex: Hacking, virus attacks	**Weapon** (Device as) Use computer to commit real world crime Ex: cyber terrorism, credit card fraud	**4 victims** Crime Against 1) Individual 2) Property 3) Organization 4) Society at Large	1) Cyber war 2) Money income / Financial gain 3) Take revenge / insider threats 4) Political Campaign 5) Having fun 6) Recognition and achievement	1) Easy access to system 2) 24/7 opportunity to do crime 3) Less risk and cost 4) More profit 5) Can't detect criminal's location easily 6) Proof of crime – damaged easily 7) Can do crime internationally 8) Can hide/fake own identity

Prevention:

Cyber Laws in Pakistan:		Safety tips:	Cyber Security:

a) Electronic Transaction Ordinance 2002:
- 1st IT Law (now not applicable)
- Protects Pakistani E-commerce
- Protects Pakistan's critical infrastructure
- Taken from foreign law
	b) Electronic/Cyber Crime Bill 2007
	- Promoted by the president of Pakistan
	- Applicable from 31 December 2007
	- Deals with:
	  1) Cyber terrorism
	  2) Data damage
	  3) Electronic fraud
	  4) Spoofing
	  5) Unauthorized access to code
	- Punishment: globally and locally given
	  1) Imprisonment
	  2) Fine
	- Responsible: FIA (Federal Investigation Agency)
	Investigate and charge case
		1) Use antivirus software
		2) Insert firewalls
		3) Uninstall unnecessary software
		4) Maintain backup
		5) Check security settings
		6) Never give information to strangers
		7) Learn more about internet privacy
			- Branch of computer security
			- Related to internet
			
			Objective:
			- Establish rules to use against attack over the internet
			
			Advantages:
			- Save from critical attacks
			- Safe browsing
			- Secure incoming/outgoing data processing

Different types of cyber-crimes (and how done):

Virus Dissemination (Spreading)	Computer vandalism	Blackmailing	Financial Crime	Credit Card Fraud	Cyber Pornography	Spoofing	Email Spoofing	Cyber terrorism

• What is virus?
- Malicious software that attaches itself to another software
Solution:
1) Keep regular backup of important files
2) Be careful about opening email attachment
3) Be careful of attachments that has .exe, .vbs,. scr, .vbe, .dll, .pif, .drv, .bin, .nws, .bat, .ocx, .shs etc file extension.
	Def: Damaging/destroying data by transmitting virus rather than stealing
	
	Prevention:
	Not giving permission to software without reading the agreement
	
	Software piracy
	
	Def: Theft of software through illegal copying of genuine programs
	
	Cause: not using original software (costly)
	
	Prevention: serious attempt taken by the organization against the people involved in the distribution of pirated software
		Taking Control of FB account by sending phishing link or after mobile lost/theft and demand money.
		
		Defacing by Photoshop or other editing tools and posted in social media/YouTube and blackmailing.
		
		Mostly committed by the young to take revenge after breaking up relations.
			giving attractive advertising on the website or enticement by email or social media
			
			➢Electronic Card Fraud
			
			➢Visa Processing fraud
				For personal reasons, an individual uses another individual's credit card
				
				The owner of the credit card and the card issuer are unaware of the fact
				
				Occurs in
				- Online banking
				- Online shopping
				
				Solution:
				1) One can't use others credit card because of
				  a) Mobile security code
				  b) 2 step verification
				2) Ethical conduct
				- Enforced by bank authority
					Pornographic pictures, photos, and writings (by exchange of money)
					
					Online Service
					
					Live Video Chat
					
					Sextortion
					
					manages to get nude pic or video of victim
					
					demands money
					
					Spreading hate speech
					- Attacking political/religious ideology
					
					target: communal riot
					
					Hate speech to any community
						Send fake mail
						
						Done by faking/hiding identity
						
						Ask to provide sensitive data
						
						Find personal/financial details
						
						3 ways:
						1) Email spoofing
						2) IP spoofing
						3) Fake identity
						
						Solution:
						1) Keeping computer system updated
						2) Using a good antivirus software
						3) Don't open the mail from unknown sender
						4) Ignore mails that has
						- No sender names
						- Your name in sender details
							Def: A spoofed email is one in which e-mail header is forged so that mail appears to originate from one source but actually has been sent from another source
							
							Hacking
							
							Def: Unauthorized access to computer system by a hacker
							
							3 types of hackers:
							1) White hat hackers
							2) Black hat hackers
							3) Gray hat hackers
								Def: intentional use of computers, networks, and public internet to cause destruction and harm for personal objectives.
								
								Purpose of using social media:
								• Motivation
								•Recruitment
								• Training
								• Fund Collection
								• Claim of attack
								
								Prevention Law:
								1) Punishment: 7 Iranians work for their govt
								  Reason: Hacking
								
								2) Punishment: sent to jail
								  Place: Rawalpindi
								
								  Reason: blackmailing on social media