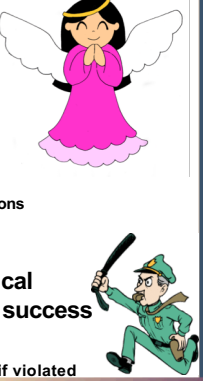


## Ethics and Laws

- ❖ **Ethics**
  - ◆ Rules of behavior based on ideas about what is morally good and bad
  - ◆ Can vary with individual and religious beliefs, country, race, or culture
  - ◆ **Personal Ethics**
    - ◆ Guide an individual's personal behavior
  - ◆ **Business Ethics**
    - ◆ Guide a business's policies, decisions, and actions
  - ◆ **Computer Ethics**
    - ◆ Concern moral conduct related to computer use
- ❖ **Individuals and businesses make ethical decisions every day which determine success**
- ❖ **Laws**
  - ◆ Formal rules of society will result in a penalty if violated
  - ◆ **Legal Rights & Ethical Responsibilities**



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## Policies and Guidelines

- ❖ **Both are binding and enforced in organization**
- ❖ **Policies**
  - ◆ Large static documents approved by governance
  - ◆ Written with some degree of flexibility so they can be adapted to changing circumstances
  - ◆ Penalties are not usually included in a policy
- ❖ **Guidelines are based on policy**
  - ◆ Focus on specific process in the functional area
  - ◆ Approved and changed by department affected so puts authority in knowledgeable staff
  - ◆ More explicit than policies in defining allowances
  - ◆ Specify penalties for violations

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## Codes of Conduct Acceptance

- ❖ **User Access Agreements**
  - ◆ Log on to employer-owned computers, employees are required to acknowledge and accept the user access agreement
- ❖ **Employee Code of Conduct**
  - ◆ Policies, steps, procedures, and guidelines define the "who, what, and when" for running the organization and also define the organization's expectations of all employees collectively
- ❖ **Professional Associations' Codes of Ethics**
  - ◆ Standards and behaviors that apply to members who come from many different companies and even countries

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## Software Theft or Piracy

- ❖ **Software theft, occurs when software is illegally copied, registered, activated, released, or sold**
  - ◆ Software includes data files, **music files**, videos, pictures, game files, e-books, computer applications, and operating system programs
- ❖ **Victims of piracy are software manufacturers, writers, programmers, and legitimate owners**
  - ◆ Customers who purchase software are victims of piracy as well, because the purchase price of software increases to cover development costs
- ❖ **Software manufacturers register or *copyright* their work to protect it from unethical copying**
  - ◆ **Software Piracy Sting**

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## What Is Copyright?

- ❖ Copyright refers to a series of rights that are granted to the author of an original work
  - ◆ Reproduction and distribution rights
  - ◆ Right to exploit their work and stop others
- ❖ United States, copyright is automatically granted to the creator of a work
  - ◆ Copyright protection remains in effect for the life of the author plus an additional 70 years
  - ◆ explicit copyright notice on the work ("©2019"), is not required to qualify for copyright protection
  - ◆ "Copyright does not protect facts, ideas, systems, or methods of operation, although it may protect the way these things are expressed."

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## The Digital Millennium Copyright Act (1998)

- ❖ If illegal activity is detected, the ISP is obligated to ensure that these illegal transfers or publications of copyrighted materials do not continue
- ❖ Violators can be liable for civil penalties of up to \$150,000 per violation
- ❖ You could also face criminal prosecution, with fines and penalties
- ❖ Is the risk of getting a criminal record and paying a hefty fine worth the reward of having pirated software?

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## Social Networking

- ❖ Social networking is ongoing communication between one or more groups of persons
  - ◆ Facebook.com, Twitter.com, eHarmony.com, Tinder.com
  - ◆ Career development: jobs posts and resumes
    - ◆ Linkin.com, Glassdoor.com, monster.com, usajobs.gov
- ❖ Public databases can store integrated information about individuals such as:
  - ◆ Police records, tax records, and credit records
  - ◆ Photos, Location, likes profiles, connections
- ❖ Cyberbullying is hostile communication behavior
  - ◆ Intimidate, control, manipulate, or humiliate recipient
- ❖ Cyberstalking is repeated unwanted communication
  - ◆ Can lead to same behavior described in cyberbullying
  - ◆ **Facebook Project: ONN**

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## Privacy

- ❖ Personally Identifiable Information (PII)
  - ◆ Name, social security number, driver license ID,
  - ◆ Credit cards
- ❖ Methods Criminals Use to Illegally Obtain PII
  - ◆ Leaving computer unattended
  - ◆ UserID and password acquisition (keyloggers)
  - ◆ Weak or common passwords
  - ◆ Social engineering—trick you into providing personal information which grants them access
  - ◆ Phishing—e-mail that looks legitimate but comes from a source seeking to illegally obtain your PII
- ❖ Browser tracking in the name of "marketing"

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## Consequences of Identity Theft

- ❖ How to avoid getting hacked?
- ❖ Criminal may have access to any of your transactions stored online
  - ◆ Medical records, tax records, driver's license, credit reports, and criminal records
  - ◆ Bank accounts, PayPal, credit cards
  - ◆ Telephone numbers, home address
  - ◆ Email accounts



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## Computer Security

- ❖ Computer Security is a safeguard.
  - ◆ Protect personally identifiable information (PII)
  - ◆ Protect computers from cyber criminal attack
- ❖ **Compromise** is a breach in security
  - ◆ Malicious attacker hacking into a system
  - ◆ User forgetting to log out of a machine
- ❖ **Risk** is likelihood that the compromise occurs
  - ◆ **Confidentiality** risk: exposing password and user ID
  - ◆ **Integrity** risk: unauthorized change to documents
  - ◆ **Availability** risk: improper control of access

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## Cyber Criminal Tactics

- ❖ **Malware** = "malicious software."
  - ◆ **Viruses** spread via e-mail, websites, file sharing, USB drives, and removable media
  - ◆ **Worms** spread across networks by exploiting software vulnerabilities
  - ◆ **Trojan horses** disguised as legitimate software "Backdoor" trojan facilitate unauthorized access
  - ◆ **Spyware** collects information about computers or their users and sends it to third parties
- ❖ **Spam messages** are unsolicited messages.
  - ◆ Can't harm computer without user interaction
  - ◆ Opening attachments or clicking links malware

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From: **Alert Service** <[mori2-kou.maho@leto.eonet.ne.jp](mailto:mori2-kou.maho@leto.eonet.ne.jp)>  
Date: Sat, Aug 11, 2018 at 5:38 AM  
Subject: (Part num your Hacked phone. +XX XXXXXX5758)

It seems that, +XX XXXXXX5758, is your phone. You may not know me and you are probably wondering why you are getting this e mail, right? actually, I setup a malware on the adult vids (porno) web-site and guess what, you visited this site to have fun (you know what I mean). While you were watching videos, your internet browser started out functioning as a RDP (Remote Desktop) having a keylogger which gave me accessibility to your screen and web cam. after that, my software program obtained all of your contacts from your Messenger, FB, as well as email.

What did I do? I backuped phone. All photo, video and contacts. I created a double-screen video. 1st part shows the video you were watching (you've got a good taste haha . . .), and 2nd part shows the recording of your web cam. Exactly what should you do? Well, in my opinion, \$1000 is a fair price for our little secret.

You'll make the payment by Bitcoin (if you do not know this, search "how to buy bitcoin" in Google).BTC Address:  
1GYNGZLEUGkkQjHo19dHDnGE87WsAiGLLB (It is cAsE sensitive, so copy and paste it)

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## Signs Computer Is Compromised?

- ❖ Signs Computer Is Compromised?
  - ◆ Pop-up ads appear even when not on web
  - ◆ Home page of your web browser is hijacked
  - ◆ Computer seems less responsive and slow
  - ◆ Internet access is persistently slower
  - ◆ Windows is “low on resources” frequently
  - ◆ Your firewall cannot be started
  - ◆ Antivirus software cannot be updated
  - ◆ Computer is crashing often
- ❖ Responding to a Compromise
  - ◆ Update and run virus and spyware scanners
  - ◆ Have serviced by a computer professional

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## Protection from Cyber Attacks

- ❖ How to Protect Computer From Viruses and Hackers
  - ◆ Update all software and firmware to latest
  - ◆ Scan for viruses
    - ◆ [www.bitdefender.com/solutions/free.html](http://www.bitdefender.com/solutions/free.html)
    - ◆ AVG and Avast make free virus scanners too
  - ◆ Update Java or remove it (Disable Java for browser)
  - ◆ Create Standard User not administrator account for daily use
  - ◆ Change to OpenDNS [208.67.222.222](http://208.67.222.222) and [208.67.220.220](http://208.67.220.220)
  - ◆ Backup all data and OS software
  - ◆ Enable Firewall which is a protective layer with Internet
- ❖ Use Password manager and strong passwords
  - ◆ Free versions [keepassxc.org](http://keepassxc.org) offline, [bitwarden.com](http://bitwarden.com) online
- ❖ Windows users [www.safer-networking.org](http://www.safer-networking.org)
  - ◆ Spybot search and destroy
  - ◆ Spybot Anti-Beacon

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## Privacy Plan

- ❖ Develop Good Security Habits
  - ◆ Logging out, beware of spam emails, change passwords
  - ◆ Use a Virtual Private Network VPN [windscribe.com](http://windscribe.com) is free
  - ◆ Avoid services from 5 eyes [www.privacytools.io](http://www.privacytools.io)
- ❖ How to protect your online privacy - noob to pro
  - ◆ Compartmentalization browsers and avoid Chrome and IE
    - ◆ Sign in to [Google](http://Google), YouTube, or Facebook account in only one browser
    - ◆ Never sign into same browser for search or financial transactions
  - ◆ Firefox Preferences
    - ◆ Tracking protection: always on, Do not track, block third party cookies
    - ◆ Search engine default to either DuckDuckGo or Qwant
    - ◆ Addon: uBlock Origin = blocks adds and trackers
    - ◆ Addon: HTTPS Everywhere = force websites to use encrypted versions
    - ◆ Addon: Decentraleyes = improves privacy
  - ◆ Brave = Blocks all ads and has privacy settings
  - ◆ Tor = Hides IP address by anonymity

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## Email and Open Source Software

- ❖ Don't use online services that surveil you
  - ◆ [This is how Google is spying on everything you do](http://This is how Google is spying on everything you do)
- ❖ Privacy focused communication
  - ◆ [ProtonMail.com](http://ProtonMail.com) for encrypted web mail and smartphone apps
  - ◆ [signal.org](http://signal.org) for messaging and voice for phone and computer
- ❖ Use Open Source Software
  - ◆ They are free
  - ◆ They have no telemetry
  - ◆ They have no tracking built in
  - ◆ [LibreOffice.org](http://LibreOffice.org) for office applications
  - ◆ [Firefox](http://Firefox.org) by Mozilla.org for browser
  - ◆ Brave Browser for browser
  - ◆ KeePassXC for Password Manager
  - ◆ Switch to Linux for Operating System

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