

New Threats to the Information Age oComputers can be used to perform many traditional criminal acts. All Rights Reserved Defining the Terms o"Cyber" to mean "real" or "virtual" attached to a computer network oCyber crime can easily be called cybercrime or computer crime and Cyber terrorism can be referred to as cyberterrorism. oMalware: viruses, worms, Trojan horses, spyware, adware, or other destructive software –Short for malicious software –Referred to as a "computer contaminant" Copyright (C) 2019, 2015, 2012 Pearson Education, Inc. All Rights Reserved Other Classification Schemes (2 of 3) oGordon and Ford –Type II offenses ?Do not involve malware ?Generally involve repeated contacts or events from the point of view of the victim ?Do not usually involve the use of software ?Examples: cyberstalking, harassment, child predation, extortion Copyright (C) 2019, 2015, 2012 Pearson Education, Inc. All Rights Reserved Other Classification Schemes (1 of 3) oGordon and Ford developed two-category scheme: –Type I offenses are primarily technological in nature and involve: ?A single or discreet event from the point of view of the victim ?Involves the use of malware ?Can be, but may not be, facilitated by computer software vulnerabilities Copyright (C) 2019, 2015, 2012 Pearson Education, Inc. All Rights Reserved The Reality of Increased Cybervictimization oTwo trends drive the reality of increased cybervictimization: –Increased use of computers –Increased availability of technical information on virus creation and computer hacking techniques ?Who poses the greatest threat? All Rights Reserved Changes to Cybervictimization and the Emergence of Cyber Terror oThe dynamics and processes involved in the productive of cyber crime and cyber terrorism are virtually the same. All Rights Reserved Carter's Classification of Computer Crimes oComputer crimes can be classified into four categories: –The computer as a target –The computer as an instrument of a crime –The computer as incidental to a crime –Crimes associated with the prevalence of computers Copyright (C) 2019, 2015, 2012 Pearson Education, Inc. –2016 Summer Olympics –2016 Trump/Hilary presidential campaign oExamples include: –Data alteration –Network intrusion –Computer vandalism Copyright (C) 2019, 2015, 2012 Pearson Education, Inc. All Rights Reserved New Threats to the Information Age oThe number of Internet-connected devices-- including traditional computers, mobile devices, and newer technologies-- is currently estimated to exceed 8.7 billion. In the late 1970s, the Bureau of Justice Statistics highlighted the emergence of computer crime through a series of publications that included an overview of important issues, Computer security, and crimes related to electronic fund transfers. All Rights Reserved The Costs of Cybercrime (2 of 3) oAmerican Bar Association (ABA) Survey –Estimated losses from computer-related crime ranged from \$145 million to \$730 million over a 1-year period. ?Offenses vary in character from clear criminality (e.g., theft, fraud, or destruction of data files) to acts where criminal culpability is less clear, such as violations of privacy (e.g., unauthorized access to credit reports or medical records). The majority of research in this area focuses on the mechanisms and techniques used rather than on the etiology of the offenders and the offenses they commit. –Russia and cyberterrorism –Stuxnet and Israel Copyright (C) 2019, 2015, 2012 Pearson Education, Inc. All Rights Reserved The Costs of Cybercrime (1 of 3) oEstimates of cost: –Most estimates are derived from surveys of corporations and government agencies. All Rights Reserved The Costs of Cybercrime (3 of 3) oEarly ABA and FDLE studies focused on internal threats because networks were limited in the 80s and early-90s. –Exploits trust oExamples include: –Theft –Fraud –Threats and harassment –Bullying Copyright (C) 2019, 2015,

2012 Pearson Education, Inc. Examples include: –Money laundering –Criminal enterprise –Child pornography –Luring victims Copyright (C) 2019, 2015, 2012 Pearson Education, Inc. –Intellectual property theft –Component theft –Counterfeiting –Identify theft –White collar crime Copyright (C) 2019, 2015, 2012 Pearson Education, Inc. Corporate espionage ?Exploitation ?Stalking ?Identity theft Copyright (C) 2019, 2015, 2012 Pearson Education, Inc. –Insiders –Outsiders –is increasing Copyright (C) 2019, 2015, 2012 Pearson Education, Inc. Copyright (C) 2019, 2015, 2012 Pearson Education, Inc. 1.1