

### 3.1 Unauthorized use of a computer

**Section 342.1** of the Criminal Code relates to the unauthorized use of a computer. This section penalizes the following acts if done fraudulently and without colour of right:

1. obtaining, directly or indirectly, any computer service<sup>20</sup>,

**Illustration:**

Parag is a college student who has just appeared for his final semester examination. He is worried that he will not obtain a good score in the Geology paper. One night he slips into the office of the Geology professor and starts up her computer. He then changes his grades. Parag would be liable under this section.

**Illustration:**

Katrina, a beautiful young girl, has a romantic relationship with Kabir. Sapna is very jealous and wants to eavesdrop on the emails that Katrina and Kabir send to each other. She tricks Katrina into installing a Trojan program onto her laptop. The Trojan enables Sapna to view all the information on Katrina's computer. Sapna would be liable under this section.

2. doing the following by means of an electro-magnetic, acoustic, mechanical or other device<sup>21</sup>:
  - a. intercepting<sup>22</sup> any function<sup>23</sup> of a computer system<sup>24</sup> or
  - b. causing to be intercepted any function of a computer system

**Illustration:**

Jack is a spy who specializes in corporate espionage. He is hired by JetFX Systems to steal confidential information from SpeedT Processing, a rival company.

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<sup>20</sup> According to section 342.1(2) of the Criminal Code "computer service" includes data processing and the storage or retrieval of data;

<sup>21</sup> According to section 342.1(2) of the Criminal Code "electro-magnetic, acoustic, mechanical or other device" means any device or apparatus that is used or is capable of being used to intercept any function of a computer system, but does not include a hearing aid used to correct subnormal hearing of the user to not better than normal hearing;

<sup>22</sup> According to section 342.1(2) of the Criminal Code "intercept" includes listen to or record a function of a computer system, or acquire the substance, meaning or purport thereof;

<sup>23</sup> According to section 342.1(2) of the Criminal Code "function" includes logic, control, arithmetic, deletion, storage and retrieval and communication or telecommunication to, from or within a computer system;

<sup>24</sup> According to section 342.1(2) of the Criminal Code "computer system" means a device that, or a group of interconnected or related devices one or more of which, (a) contains computer programs or other data, and (b) pursuant to computer programs, (i) performs logic and control, and (ii) may perform any other function;

Jack installs TEMPEST attack machinery in his van and parks near the SpeedT office. He is then able to remotely pick up all the keystrokes and messages displayed on the computer screens of the SpeedT employees.

Jack would be liable under this section for intercepting the functions of the computer system of SpeedT Processing.

The management of JetFX Systems would be liable for causing the functions of the computer system of SpeedT Processing to be intercepted.

3. using or causing to be used a computer system with intent to commit an offence mentioned in (1) or (2) above or mischief<sup>25</sup> in relation to data<sup>26</sup>,

**Illustration:**

The network administrator in a global bank received a beautifully packed CD ROM containing “security updates” from the company that developed the operating system that ran his bank’s servers. He installed the “updates” which in reality was Trojanized software and was programmed to steal customer usernames and passwords.

All the persons responsible for creating and sending the Trojanized software would be liable under this section.

The following willful acts amount to **mischief**:

- (a) destroying or altering data;

Destroys means “to make useless”, “cause to cease to exist”, “nullify”, “to demolish”, or “reduce to nothing”.

**Illustration:**

Sameer is a graphics designer. He creates high resolution images and stores them on his computer. One of his employees deliberately deletes hundreds of these images. The employee is liable under this section for destroying the data (i.e. the high resolution images).

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<sup>25</sup> According to section 430(1.1) of the Criminal Code, the following willful acts amount to mischief: (a) destroying or altering data; (b) rendering data meaningless, useless or ineffective; (c) obstructing, interrupting or interfering with the lawful use of data; (d) obstructing, interrupting or interfering with any person in the lawful use of data (e) denying access to data to any person who is entitled to access it. According to section 430(5) of the Criminal Code, mischief in relation to data is punishable with imprisonment upto 10 years.

<sup>26</sup> According to section 342.1(2) of the Criminal Code “data” means representations of information or of concepts that are being prepared or have been prepared in a form suitable for use in a computer system;

**Illustration:**

A disgruntled employee of a small bank placed a powerful magnet near the bank's main server. Over a few weeks, the bank lost vital data relating to its customers' accounts. The employee would be liable under this section.

**Illustration:**

Sameer picks up Sanya's laptop with the intention of stealing it. He then accidentally drops it on the floor, thereby destroying it. Sameer would be liable under this section.

**Illustration:**

Sanya has left her laptop on a table. Someone drops water on the table and the water is about to touch the laptop. With the intention of saving the laptop from the water, Sameer picks it up from the table. He then accidentally drops it on the floor, thereby destroying it. Sameer would not be liable under this section.

Destroying data also includes acts that render the data useless for the purpose for which it had been created.

**Illustration:**

Noodle Ltd has created a vast database of customer details and buying habits. The Noodle managers can query this database using a sophisticated "query management system".

Sameer has developed this unique and path breaking "query management system" entirely on his own. One day, Sameer quits his job and takes the entire code of the "query management system" with him.

Now the information in the database is still intact but it is no longer usable for the purpose of predicting customer orders. Sameer has, in effect, also destroyed the information contained in the database. Sameer would be liable under this section.

**Illustration:**

Pooja is a graphics designer. She creates very high resolution images for her clients. A high resolution image can be magnified several times and still look clear. She can sell each image for around \$200.

Sameer is one of her employees. He changes some of the high resolution images into low resolution images. Although the low resolution images look the same as the high resolution ones, they cannot be magnified. Now she cannot sell an image for more than \$25. Sameer would be liable under this section.

(b) rendering data meaningless, useless or ineffective;

**Illustration:**

Rohit was the network administrator of a large software company. One day, he downloaded a free software program from the Internet for remote shut down of computers on the network. He felt that the software would be very useful and thus, he installed it on many computers in his office.

He did not know that the software was in reality a virus. Within two hours all the data on the office computers was converted into encrypted matter and became unusable.

Rohit would not be liable under this section as he had not willfully done the act of making the data meaningless, useless and ineffective.

**Illustration:**

Sameer was very disgruntled with the fact that he was not promoted in his company. Out of anger he installed a virus on many computers in his office. Within two hours all the data on the office computers was converted into encrypted matter and became unusable.

Sameer would be liable under this section as he had willfully done the act of making the data meaningless, useless and ineffective.

(c) obstructing, interrupting or interfering with the lawful use of data;

**Illustration:**

Gayatri, a disgruntled employee of the GoodBrew Coffee Company installs a computer worm on some of the office computers. The computer worm replicates itself and thereby hogs up system resources such as hard disk space, bandwidth etc. This severely diminishes the performance and speed of the computer network. Gayatri would be liable under this section.

(d) obstructing, interrupting or interfering with any person in the lawful use of data

(e) denying access to data to any person who is entitled to access it.

**Illustration:**

Noodle Ltd runs a commercial email service. Sameer uses sophisticated software to launch a denial of service attack on the Noodle website and brings it down for a few hours.

Sameer would be liable under this section as he has denied access to the data to the Noodle customers.

4. uses, possesses, traffics<sup>27</sup> in or permits another person to have access to a computer password<sup>28</sup> that would enable a person to commit an offence mentioned in (1) or (2) or (3) above.

**Illustration:**

Gunjan is a security guard at the NatGeo Bank. One day she steals a hard disk from the bank's server room. This hard disk has the passwords and other confidential information relating to the bank accounts of millions of NatGeo customers.

Gunjan would be liable under this section as she is in possession of computer passwords that would enable a person to commit an offence such as unauthorised access.

Gunjan sells the hard disk to her friend Paul, who in turn sells the passwords to some hackers in Russia. Paul would be liable under this section for trafficking in the passwords.

A person who violates this section is guilty of an indictable offence and liable to imprisonment for a term not exceeding **10 years**, or is guilty of an offence punishable on summary conviction.

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<sup>27</sup> According to section 342.1(2) of the Criminal Code “traffic” means, in respect of a computer password, to sell, export from or import into Canada, distribute or deal with in any other way.

<sup>28</sup> “computer password” means any data by which a computer service or computer system is capable of being obtained or used;