Unit 1: Chapter 2 - Study Guide

By the end of this chapter you should be able to:

- Connect a personal experience to one challenge related to the idea that "The Internet is for Everyone".
- Cite examples of how computing has a global affect -- both beneficial and harmful -- on people and society.
- Explain that the Internet is a distributed global system that works on shared and open protocols.
- Explain why messages need to contain addressing information (sender/recipient identification).
- Invent an informal addressing protocol for use in the Battleship game.
- Recall that browsing the Internet entails computers sending each other requests and sending back data to satisfy those requests.
- Describe the redundancy of routing between two points on the Internet.
- Evaluate the benefits and security concerns associated with the use of a routed system of sending packets.
- Send messages using a numeric addressing protocol with the Internet Simulator.
- Explain why protocols are necessary to overcome the underlying unreliability of the Internet.
- Justify the need for acknowledgements and packet numbering in TCP.
- Develop a protocol for reliable communication on the Internet.
- Give a high level description of DNS as a name-to-IP-address mapping system used on the Internet
- Give a few reasons why DNS is useful and necessary
- Describe at least one vulnerability of DNS and how an attack on it works
- Explain how layers of protocols allow the Internet to function.
- Use developer tools in a modern browser to explore the HTTP traffic associated with visiting common websites.
- Identify abstractions used in the development of Internet protocols.
- Describe how a protocol or layer of the internet acts as an "abstraction" for other layers.
- Research a global impact of the Internet.
- Create and present a flash talk on a global impact of the Internet.
- Analyze the relationship of an Internet technology to the impact.