From the Ocean to Your Computer

Fiber Optic Cables
Underwater fiber optic cables are made of plastic and glass and can transmit terabytes of data per second. Your internet speed may be shaped by the number of cables connected to your country and the state and corporate investment in that infrastructure.

Internet Service Provider (ISP)
ISPs are typically commercial companies that provide internet access for a fee. Major ISPs include Verizon, Comcast, and Time Warner Cable. In some places, there are alternatives to paying these companies for internet; a community can construct its own mesh network.

Data Center
Data produced by everyday use of the Internet requires lots of storage on servers located in data centers. Data centers have a high environmental impact, requiring a lot of energy to fulfill many user requests.

Servers
When you use the Internet, the client (your computer) queries a server (the website) to perform an action. The location of a server impacts the freedom you have to access that website. Servers are subject to the laws, surveillance, and censorship of the states they are located in.

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Firewall
Firewalls monitor incoming and outgoing traffic on a network. Firewalls can help prevent things like malware and other threats to your computer. Firewalls can also be used by governments to censor traffic to certain websites.

Modem/Router
Most internet access is facilitated through a combined modem/router unit, connecting the computers in your home to the same network and then connecting that network to the internet. Data that travels between your modem/router is visible to your ISP if you are using unencrypted technologies.

Your Computer
The construction of computers and cell phones require large-scale global extraction of minerals. Some of the minerals necessary include rare earth elements (REE). The mining of these elements has wide-reaching effects on the local ecosystems, labor practices, and geopolitics.

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