Make a distinction between a client socket -an endpoint of a conversation, and a server socket, like a switchboard operator. The client application uses client sockets exclusively, the web server it’s talking to uses both server sockets and client sockets.

Client sockets are normally only used for one exchange (or a small set of sequential exchanges).

If we had used (s.bind((“localhost”, 80)) or s.bind((“127.0.0.1”,80)) we would have a server socket, but one that was only visible within the same machine. If use socket.gethostname(), socket would be visible to the outside world. Another note is low number ports are usually reserved for “well known” services (HTTP, SNMP etc.) Use a nice high number (4 digits).

Server socket doesn’t send any data. It doesn’t receive any data. It just produces “client” sockets. Each clientsocket is created in response to some other “client” socket doing a connect() to the host and port we’re bound to. As soon as we’ve created that clientsocket, we go back to listening for more connections. The two “clients” are free to chat it up – they are using some dynamically allocated port which will be recycled when the conversation ends.