

**4.5 The Input/Output Subsystems**

- A computer communicates with the outside world through its input/output (I/O) subsystem.
- I/O devices connect to the CPU through various interfaces.
- I/O can be memory-mapped-- where the I/O device behaves like main memory from the CPU's point of view.
- Or I/O can be instruction-based, where the CPU has a specialized I/O instruction set.