algorithm: a set of steps that defines how a task is performed. The intelligence required to perform the task is encoded in the algorithm. Intelligence displayed by machines is limited by the intelligence that can be conveyed through algorithms. The conceptual algorithm must be transformed into a clear set of instructions and represent these instructions in an unambiguous manner.

program: a machine-compatible representation of an algorithm.

software: programs and the algorithms they represent

hardware: the machinery itself.

0.2
The first computing device was the abacus. Algorithm execution relied on the human operator. Abacus=data storage system.

See “Computing History” notes.


IBM introduces the first desktop computer, called the personal computer or PC, 1981.

0.4
The distinction between the external properties of a component and the internal details of the component’s construction is known as abstraction.