

Exercícios do Cap. 1, Russell and Norvig, 3rd ed., 2009.

1.1 Define in your own words: (a) intelligence, (b) artificial intelligence, (c) agent. (d) rationality, (e) logical reasoning .

1.2 Read Turing's original paper on AI (Turing, 1950). In the paper, he discusses several objections to his proposed enterprise and his test for intelligence. Which objections still carry weight? Are his refutations valid? Can you think of new objections arising from developments since he wrote the paper? In the paper, he predicts that, by the year 2000, a computer will have a 30% chance of passing a five-minute Turing Test with an unskilled interrogator. What chance do you think a computer would have today? In another 50 years?

1.7 To what extent are the following computer systems instances of artificial intelligence:

- Supermarket bar code scanners.
- Web search engines.
- Voice-activated telephone menus.
- Internet routing algorithms that respond dynamically to the state of the network.

1.14 Examine the AI literature to discover whether the following tasks can currently be solved by computers:

- a. Playing a decent game of table tennis (Ping-Pong).
- b. Driving in the center of Cairo, Egypt.
- c. Driving in Victorville, California.
- d. Buying a week's worth of groceries at the market.
- e. Buying a week's worth of groceries on the Web.
- f. Playing a decent game of bridge at a competitive level.
- g. Discovering and proving new mathematical theorems.
- h. Writing an intentionally funny story.
- i. Giving competent legal advice in a specialized area of law.
- j. Translating spoken English into spoken Swedish in real time.
- k. Performing a complex surgical operation.