Problem Characteristics

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1. Is the problem decomposable into small sub-problems which are easy to solve?
2. Can solution steps be ignored or undone?
3. Is the universe of the problem is predictable?
4. Is a good solution to the problem is absolute or relative?
5. Is the solution to the problem a state or a path?
6. What is the role of knowledge in solving a problem using artificial intelligence?
7. Does the task of solving a problem require human interaction?

Examples

- Ignorable, in which solution steps can be ignored. Eg: Theorem Proving
- Recoverable, in which solution steps can be undone. Eg: 8-Puzzle
- Irrecoverable, in which solution steps cannot be undone. Eg: Chess

Examples

- 8-Puzzle problem – predictable
- Bridge, cards – not predictable

Examples

- Absolute – one solution
- Relative – more than one solution

Human Interaction

- The **solitary problem**, in which there is no intermediate communication and no demand for an explanation of the reasoning process.
- The **conversational problem,** in which intermediate communication is to provide either additional assistance to the computer or additional information to the user.