

Introducing Mycin

Mycin was an expert (rule-based) system that would assist in the treatment of blood infections. It was believed that since antibiotic prescription is difficult and requires some depth of knowledge, Mycin would be able to quickly give suggestions and be able to explain its reasoning.

Mycin's Components

Mycin had five primary components.

1. Knowledge base: a list of facts about its domain that were provided by someone with the requisite knowledge.
2. Patient database: a database consisting of patient history and current information about their case.
3. Consultation module: a program where a doctor could ask Mycin questions, and it would respond with advice pertaining to the case.
4. Explanation module: a program where Mycin would explain its reasoning about its choices.
5. Knowledge acquisition module: Mycin would learn from its experiences and change its rules accordingly.

Internally, Mycin used context trees to help organize its data and make decisions.

Evaluation

Mycin's predictions were compared to experts in the field. Its results were comparable to expert recommendations and better than non-expert recommendations.

Problems

1. Mycin's knowledge base was limited.
2. Doctors were hesitant to trust it.
3. Terrible user interface.