

Modeling and Simulation

Prof. Dr. Hazem El-Bakry
Information Systems Dept.
elbakry@mans.edu.eg



Business Information Systems

Types

Transaction processing systems
E-commerce systems
Management information
systems
Decision suggests to systems
Expert systems

Management Information Systems

An organized collection of people, procedures, software, databases, and devices used to provide routine information to managers and decision makers



Schematic of MIS

Marketing Manufacturing management management information Information system system Common databases Financial Order management management Information information system system TPS

MIS 'Discussion'

Short for management information system or management information services, and pronounced as separate letters, MIS refers to a class of software that provides managers with tools for organizing and evaluating their department. Typically, MIS systems are written in COBOL and run on mainframes or minicomputers

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Expert systems



Decision support systems

•A DSS is...

An organized collection of people, procedures, software, databases, and devices used to support problem-specific decision making

•A DSS helps a manger "do the right thing"



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Expert systems

An expert system is

a computer application that performs a task that would otherwise be performed by a human expert. It gives the computer the ability to make suggestions and to act like an expert in a particular field.

Expert systems

Examples: diagnose human illnesses, make financial forecasts, schedule routes for delivery vehicles

Expert systems typically included in "artificial intelligence" (next slides)



The branch of computer science concerned with making computers behave like humans. The term was coined in 1956 at the Massachusetts Institute of Technology.

Artificial intelligence includes:

Games playing: programming computers to play games such as chess and checkers

Expert systems: programming computers to make decisions in real-life situations (for example, some expert systems help doctors diagnose diseases based on their given medical data)

Natural language: programming computers to understand natural human languages

Neural networks: Systems that simulate intelligence by attempting to reproduce the types of physical connections that occur in human brains.

Robotics: programming computers to see and hear and react to other sensory signal



Q1:____means programming computers to make decisions in real-life situations.

- a) Natural language
- b) Neural Networks
- c) **Expert Systems**
- d) CBIS

Q2: _____ are written in COBOL and run on mainframes or minicomputers.

- a) DSS
- b) TPS
- c) MIS
- d) CBIS

Q3: _____ refers to a class of software that provides managers with tools for organizing and evaluating their department.

- a) TPS
- b) MIS
- c) DSS
- d) CBIS

Q4: _____ is an organized collection of people, procedures, software, databases, and devices used to provide routine information to managers and decision makers.

- a) TPS
- b) MIS
- c) DSS
- d) CBIS

Q5:_____is an organized collection of people, procedures, software, databases, and devices used to support problemspecific decision making.

- a) TPS
- b) MIS
- c) DSS
- d) CBIS

Q6: _____ means systems that simulate intelligence by attempting to reproduce the types of physical connections that occur in human brains.

- a) Natural language
- b) **Neural Networks**
- c) Expert Systems
- d) CBIS

Q7: ____ means programming computers to understand natural human languages.

- a) Natural language
- **b) Neural Networks**
- c) Expert Systems
- d) CBIS



Q8: ____ a computer application that performs a task that would otherwise be performed by a human expert.

- a) TPS
- b) CBIS
- c) MIS
- d) **Expert System**

- **Q9:** Artificial intelligence includes _____
- a) networks
- b) TPS
- c) MIS
- d) **Games playing**

Q10: _____programming computers to see and hear and react to other sensory signal.

- a) TPS
- b) robotics
- c) Procedures
- d) E-commerce