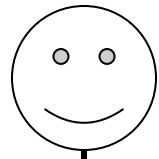


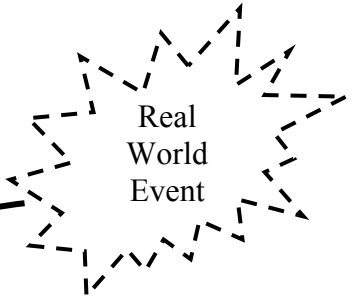
**CONCEPTIONS**

**LOGICAL** → CONTENT/TASK  
 physical → medium/technology

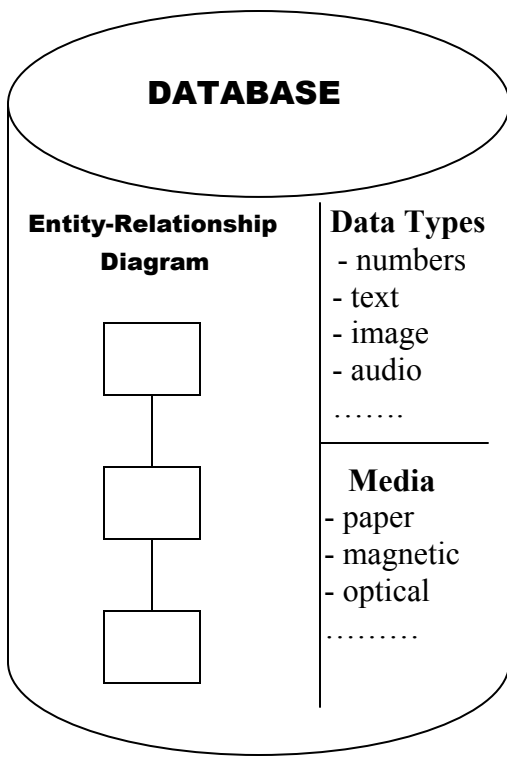


**DATA**

- keyboard
- scanner
- microphone
- .....

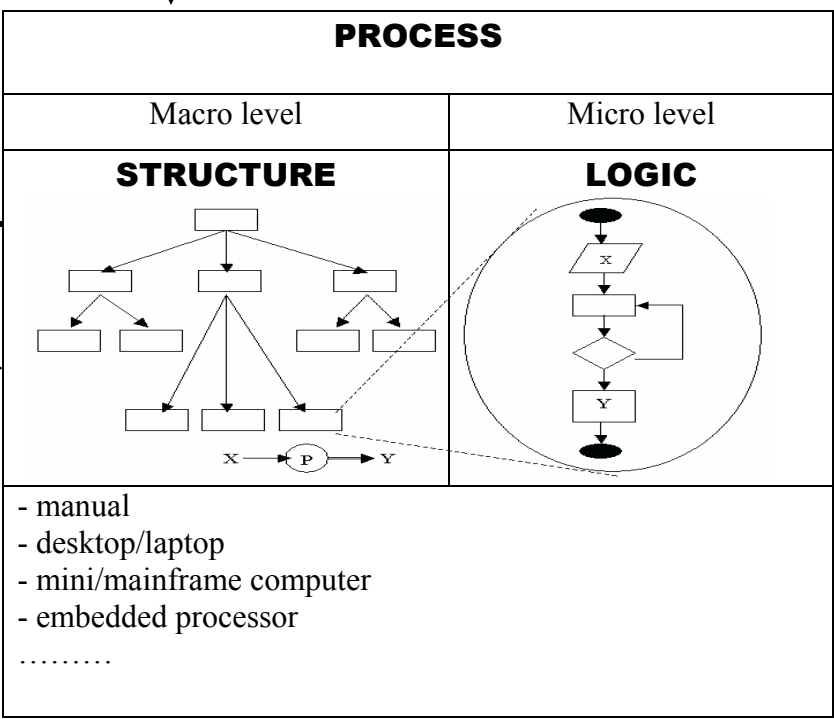


source data automation



**STORE**

**RETRIEVE**



**INFORMATION**

- monitor
- printer
- speaker
- .....

**Types of Information**

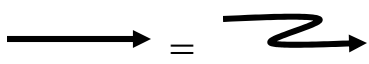
Factual (raw): know-that/where/what/who/when → *data*

Factual (processed): → *information*

Relational: know-why → *knowledge*

Procedural: know-how → *instruction*

Explanatory: why of know-why → *understanding*



# Types of Information

Factual (raw): know-that/where/what/who/when → *data*

Date	Mileage	Number of Gallons	Oil Change
XXXXX	XXXXXX	XXX	
XXXXX	XXXXXX	XXX	
XXXXX	XXXXXX		√
XXXXX	XXXXXX	XXX	
XXXXX	XXXXXX	XXX	
XXXXX	XXXXXX	XXX	
XXXXX	XXXXXX	XXX	
XXXXX	XXXXXX		√
XXXXX	XXXXXX	XXX	
XXXXX	XXXXXX	XXX	
XXXXX	XXXXXX	XXX	
XXXXX	XXXXXX	XXX	
.....	.....	.....	

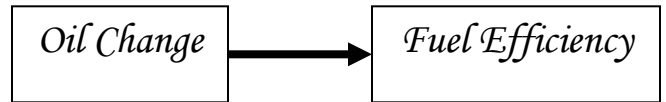
Factual (processed): → *information*

Date	MPG	Oil Change
XXXXX		√
XXXXX	29	
XXXXX	29	
XXXXX	27	
XXXXX	25	
XXXXX	23	
XXXXX	23	
XXXXX		√
XXXXX	30	
XXXXX	29	
XXXXX	28	
XXXXX	26	
XXXXX	24	
XXXXX	23	
XXXXX		√
XXXXX	29	
XXXXX	29	
XXXXX	28	
XXXXX	25	
XXXXX	24	
XXXXX	23	

**Relational: know-why → *knowledge***

Oil change correlates with fuel efficiency

.....  
Oil change causes fuel efficiency



Why did fuel efficiency improve in certain periods?  
Because of oil change at the beginning of such periods.

**Procedural: know-how → *instruction***

“I would like to *know how* to improve the fuel efficiency of my car.”  
Answer: change your oil regularly and frequently!

**Explanatory: why of know-why → *understanding***

A year later: “oil change has not produced ANY improvement in my fuel efficiency.”  
WHY?!

?

