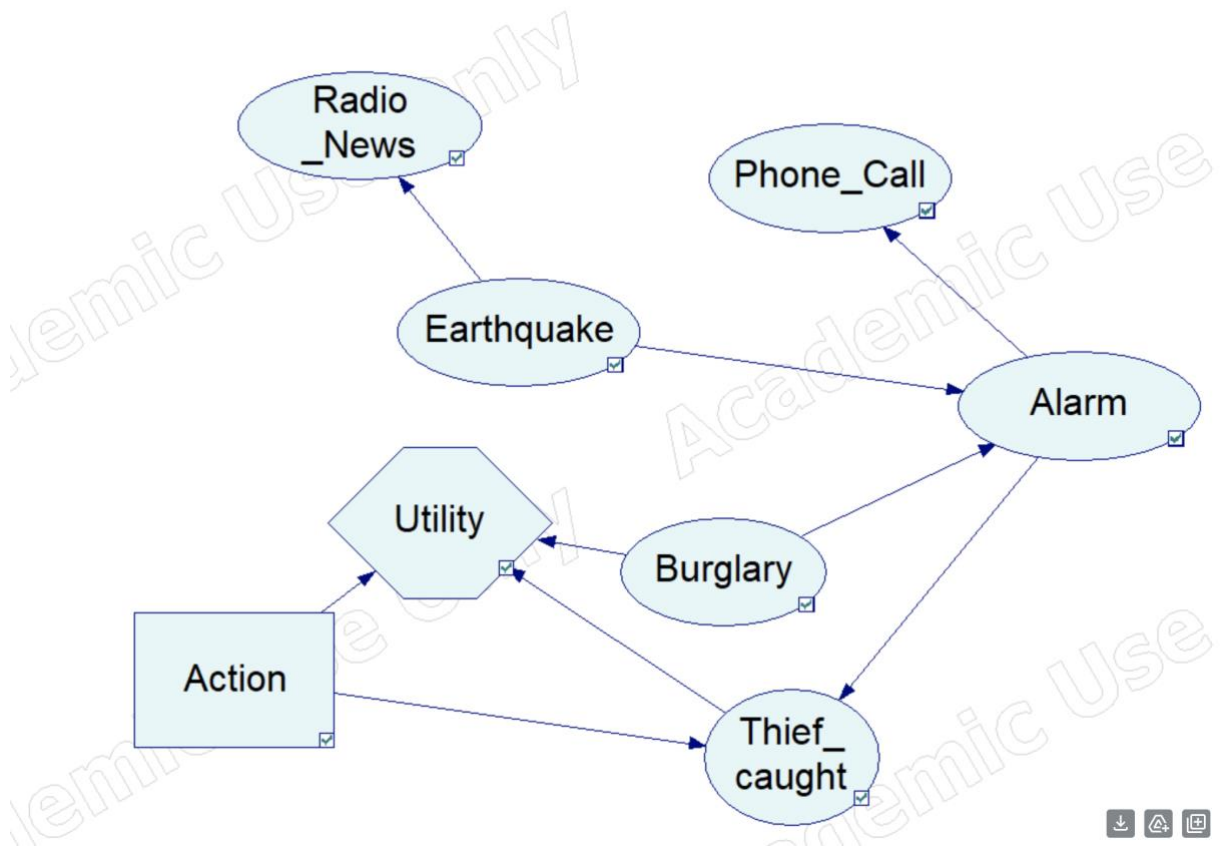


## Lab 17



### Thief Caught (T | A, D):

- If Action = "Do Nothing":
  - $P(\text{Thief Caught} \mid \text{Alarm, Do Nothing}) = 0$
  - $P(\text{Thief Caught} \mid \text{No Alarm, Do Nothing}) = 0$
- If Action = "Go Home":
  - $P(\text{Thief Caught} \mid \text{Alarm, Go Home}) = 0.3$
  - $P(\text{Thief Caught} \mid \text{No Alarm, Go Home}) = 0$
- If Action = "Call Police":
  - $P(\text{Thief Caught} \mid \text{Alarm, Call Police}) = 0.8$
  - $P(\text{Thief Caught} \mid \text{No Alarm, Call Police}) = 0$

Node properties: Thief\_caught

Action	Alarm			No Alarm		
	Do_nothing	Go_Home	Call_Police	Do_nothing	Go_Home	Call_Police
Caught	0	0.3	0.8	0	0	0
Not_caught	1	0.7	0.2	1	1	1

Utility table:

Action	Thief Caught	Thief Not Caught	Utility (Thief Caught)	Utility (Thief Not Caught)
Do Nothing	Yes	No	100	0
Go Home	Yes	No	95	-5
Call Police	Yes	No	90	-10

Node properties: Utility

General	Definition	Format	User properties	Value
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Burglary													No_Burglary												
Thief_caught													Thief_caught												
Caught													Not_caught												
Action	Do_nothing	Go_Home	Call_Police	Do_nothing	Go_Home	Call_Police	Do_nothing	Go_Home	Call_Police	Do_nothing	Go_Home	Call_Police	Do_nothing	Go_Home	Call_Police										
Value	100	95	90	0	-5	-10	0	-5	-10	0	-5	-10	0	-5	-10										