



ANADOLU ÜNİVERSİTESİ

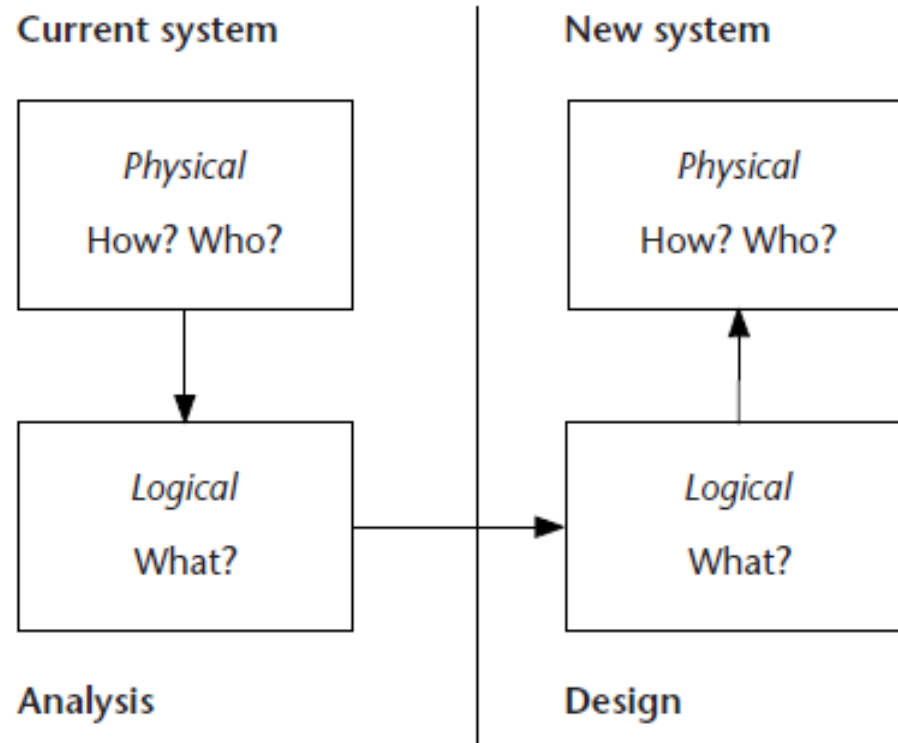
# BUSINESS SYSTEM OPTIONS

Hazırlayan

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# ***BUSINESS SYSTEM OPTIONS***

It is here that we begin to move away from analysis and into design.





we may well *continue* to identify problems and requirements as we progress,

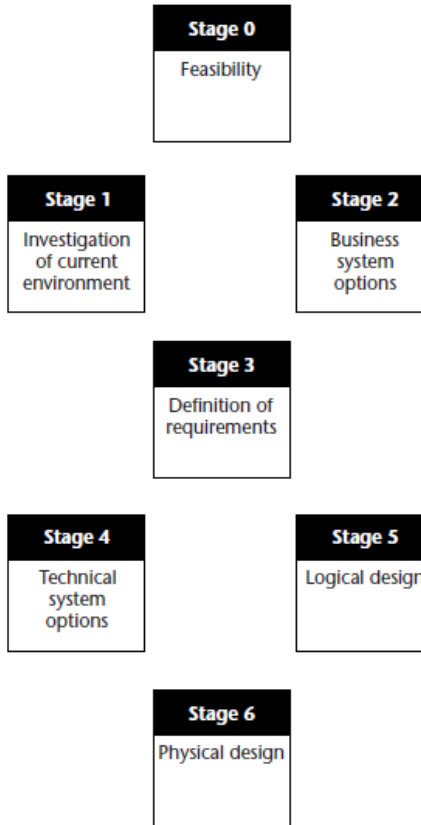
so, in a sense,

**analysis never finishes**



# The structure of SSADM

SSADM Version 4+





## ***BUSINESS SYSTEM OPTIONS***

- ⌞ we do not want to do is, find lots of problems
- ⌞ try not to simply provide a more efficient version of the old system
  - ⌞ consider quite revolutionary changes
- ⌞ the business system options consist of five or six preferred options for the new system
  - ⌞ based on the Problem and Requirements Catalogue
  - ⌞ different approaches to meeting the needs of the organization



## ***BUSINESS SYSTEM OPTIONS (BSOs)***

- ☉ The modelling takes the form of a Required Logical DFD for each option.
- ☉ These options are normally presented to whittle them down and make a choice.
- ☉ The final choice may well not be one of the original options, but a mixture of two or three of them.



# Simple steps in creating business system options

- ① Assemble the inputs to the process
  - logical DFDs
  - the entity model
  - the Problem and Requirements Catalogue
- ② Assemble the team who will create the BSOs.
  - ② This will normally be the analyst and one or more users.
- ③ Consider the aims of the organization and business plans
  - ③ budget and time-scale will be key parameters

## Simple steps in creating business system options-2

- ④ The BSO production team produce a range of ideas.
- ⑤ Five or six BSOs are agreed for further discussion or presentation
  - ⑤ These may range from a cheap option to an expensive option.
- ⑥ Two or three options are selected for detailed analysis
  - ⑥ Required Logical DFDs should be drawn up for each option.
  - ⑥ A cost–benefit analysis will be required which must consider the impact of the proposed changes on the organization.
  - ⑥ There may be a need to produce an entity model for each option





## Simple steps in creating business system options-3

- ⑦ A choice is made and documented.

It may be a mixture of two or three of the options.

- ⑧ Elementary process descriptions are produced

brief narrative descriptions of the processes in the required logical DFDs.

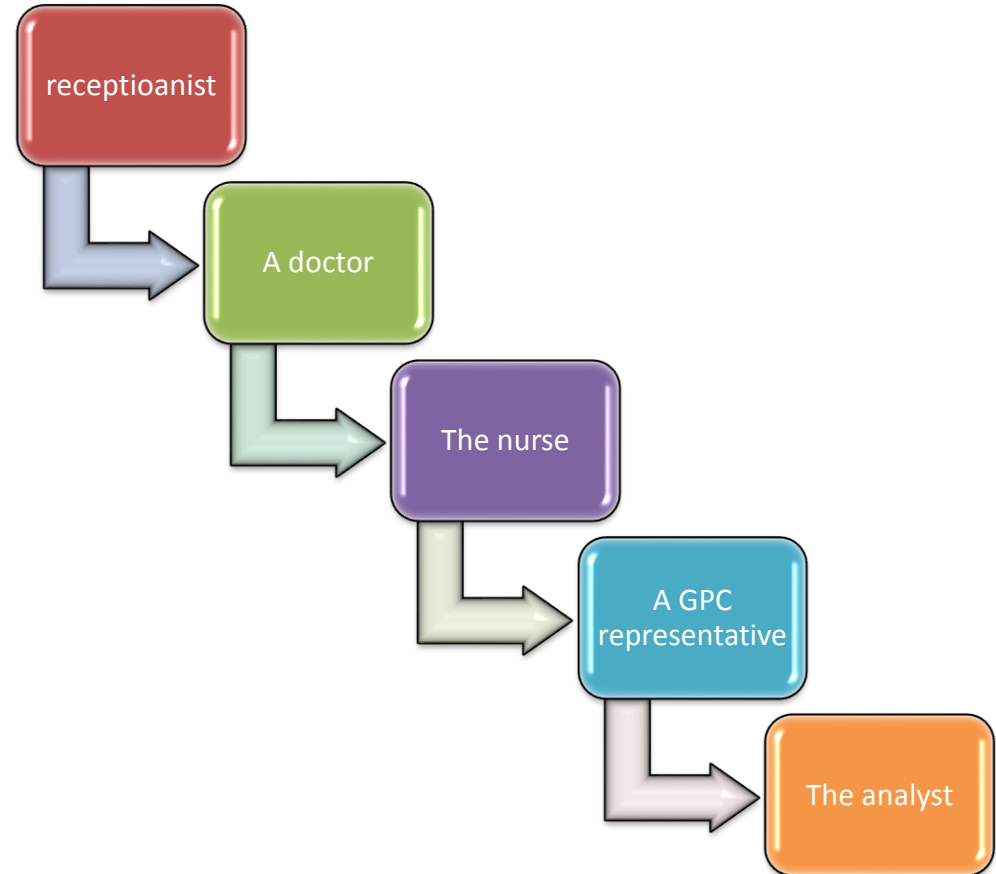
descriptions will form the basis of the programs required to make the system work.



# **BSOs at the Medical Centre**

# BSOs at the Medical Centre

BSOs production team



## *After discussions...*

- Option 1     A fully networked database system with an online supplies ordering system, email facilities and a printer in every surgery.
- Option 2     A networked database system with a terminal and printer in every surgery and in reception, with Internet access and email.
- Option 3     A simple network with a printer in reception only.
- Option 4     A stand alone system.
- Option 5     Keep the manual system, but get reliable staff to administer it.
- Option 6     A radical option involving the closing down of the Centre in its current form and replacing it with a phone-in diagnostics service and a drug dispenser.

## *After discussions ...*

- © it is decided that Option 1 is too expensive and far too modern for the medical profession to consider.
- © Option 6, although favoured by the GPC, is rejected on the grounds that the staff would be unemployable elsewhere.
- © Option 5 is rejected as the notion of 'reliable staff' is felt to be unrealistic.
- © Option 4 is also rejected as there would soon be several different versions of patient records on the different PCs.

- we come down to Option 2 or 3.
- We should now create Required Logical DFDs for each of these options and
- produce a cost–benefit analysis

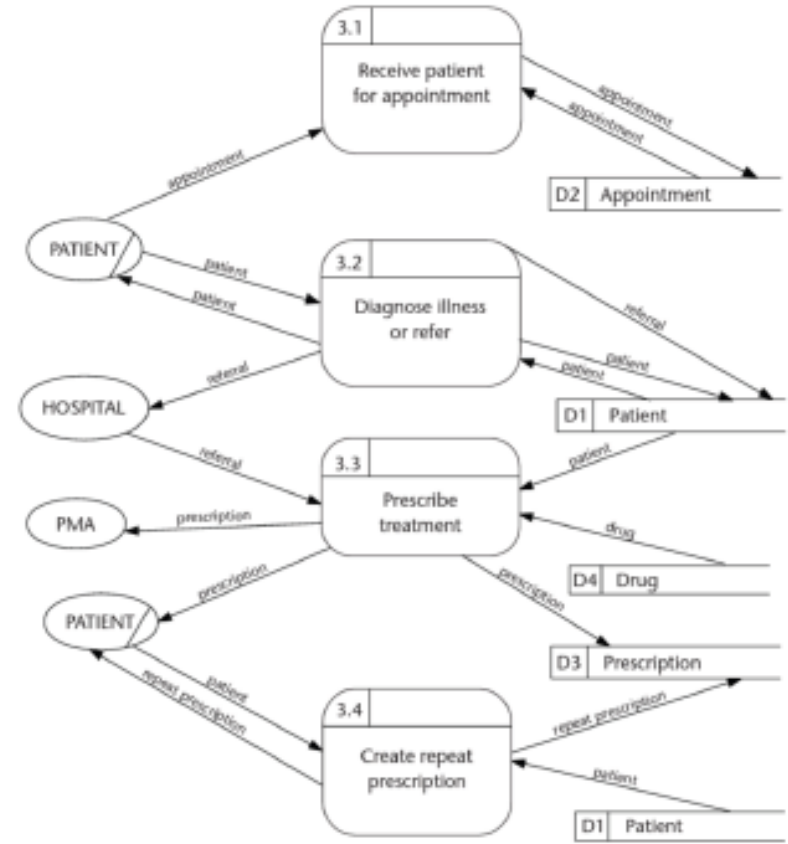
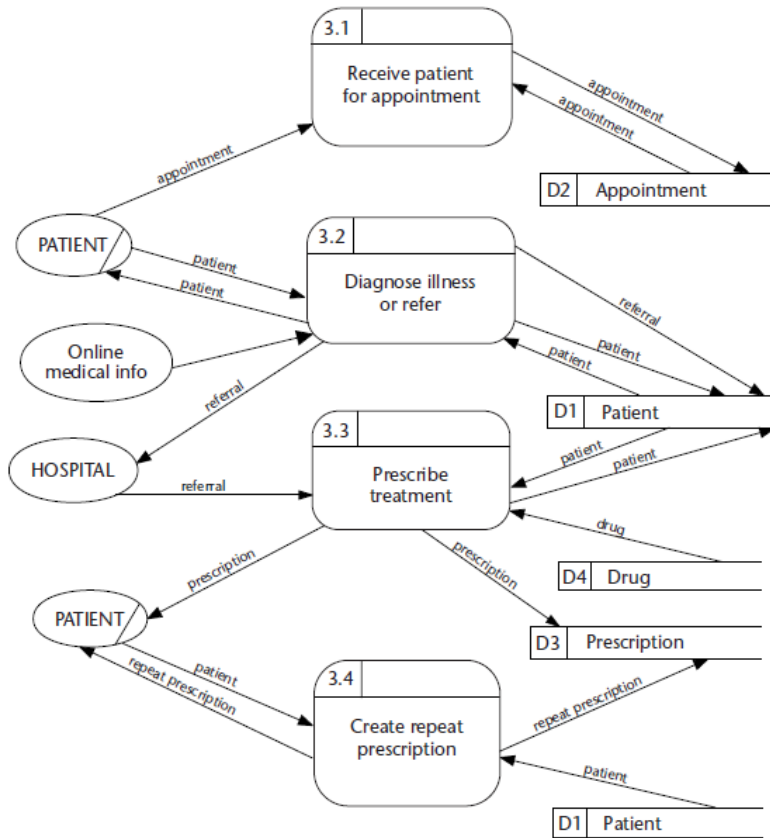


- Option 2 would allow process 3.3 'Prescribe treatment' to be performed more efficiently than Option 3.
- This is because the prescription could be printed during the appointment with the doctor rather than having to collect it afterwards from reception.
- An additional benefit of Option 2 would be that the doctor would have the benefit of online medical information to help with diagnosis.



## Required Logical DFD 'Process patient requirements' (Option 2)

## Current Logical DFD 'Process patient requirements' (Option 2)





## *What are the changes?*

- The only important change would be
  - the introduction of a new process to produce the report now required by the PMA.
- The other requirements are
  - simply a matter of improving and automating the processes on the current logical DFDs.

## Option 2: Fully networked database system with internet access

- This involves networking the Medical Centre with terminals in reception, and in each doctor's and the nurse's surgeries.
- All terminals would have Internet access.
- An integrated database system would be available incorporating appointments, registration, patient records, prescriptions management information.
- The nurse would have access to a supplies system.

# COSTS

Costs would be quite high –

- a server PC plus at least five terminals,
  - Five printers,
  - communications hardware and software,
  - other software,
  - ISP costs,
  - additional phone charges etc.
- 
- Approximate cost: £50,000.

## BENEFITS

- Automatically produce a range of management information reports which could save lots of money eventually.
- Might need fewer staff (sorry George).
- Even Betty would not be able to double book appointments, as the system would prevent this happening.
- Easy access to important online medical information would improve diagnosis and might save hundreds of lives (a week).
- Security features would prevent unauthorized access to private information. Of course this wouldn't stop Chelsea gossiping.

# BENEFITS

- Validation checks would ensure that only sensible information is entered – more or less.
- Printing prescriptions would allow chemists to read them instead of having to phone up the Centre and ask what they said.
- Repeat appointments could be automatically entered into the system and letters reminding patients could be printed.

To be useful, the analysis of benefits needs to have some sort of figure or rating attached to it.

# TIME and IMPACT

## *Time*

- It is estimated that this option would take 4 months to deliver.

## *Impact*

- This would have a major effect on the quality of the service, but would have implications for staff training.
- The phrase, 'Betty, connect the tape streamer and start the backup' is not one which could be uttered with much conviction.



similar analysis  
would need to be carried out for  
the remaining options  
and then a final decision reached.