Q) ~~Transitions~~

Q) why do we need a distinct domain?

— External actors use the "state"
of the Domain in calculations

Q) Do we need to enumerate all
the possible states in a domain?
T-if these states are relevant outside domain?

Q) Do we need to enumerate all the
possible transitions in a domain?
T-if outside conditions trigger the
transitions ??

Domain

Inter-Domain
coupling

Domain = totality of Data
structure

Elements of A Domain

- Addressability
  Something outside of Domain needs
  to use the current state of Domain
  in determining external state

The role of computation in
synthesising structure in a flat
memory map is important...

Q) When is a new instance of a Domain synthesised?

In a turing machine,
the domains / data structures
have current state
~~trans~~
have possible states
~~have transitions~~
have possible transitions at each state

In the case of the blocks on the tape...
- these domain instances are
generic and duplicative.
- the domain instances are individual
referencable
- the domain instances have current
and possible states
- the transitions between states
are well defined
  - but the triggers for the
  transitions are not defined
  within the domain

  - Some outside entity must act on
  the domain to trigger the transitions

  - An outside entity must ~~execute~~ map
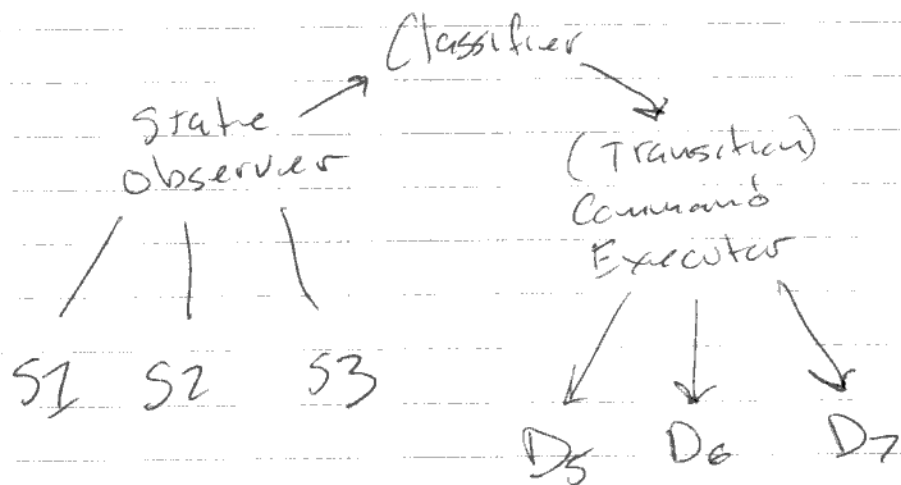 the trigger conditions to the
  domain transitions

From the outside...

A domain has

- An address
- A current state
- A set of commands that
  can be executed on the
  domain (triggers for transitions)

- An output of the possible
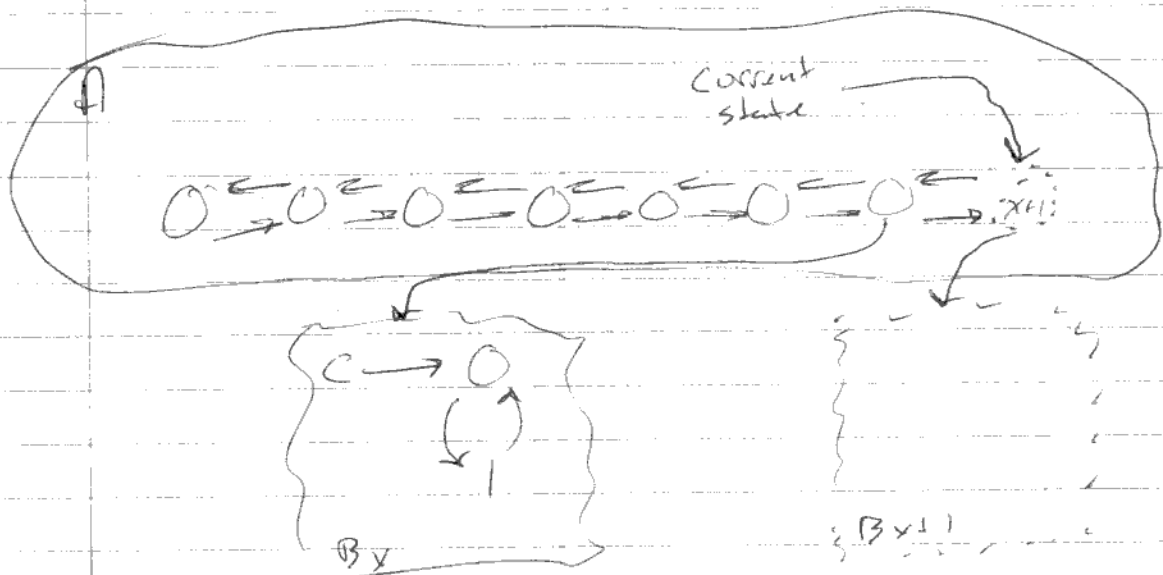 ~~sta~~ commands for the current
  state???
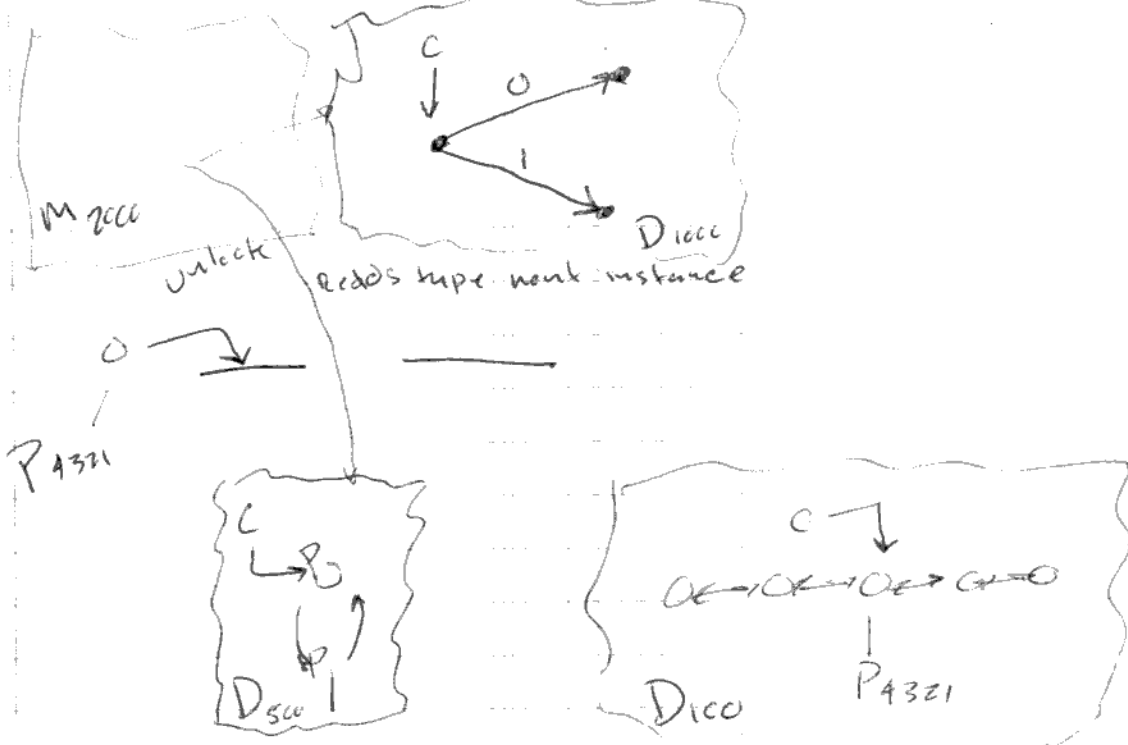
~~~

For a domain to be relevant...
a mapper must exist somewhere
that

Classifier

State
observer

S1 S2 S3

(Transition)
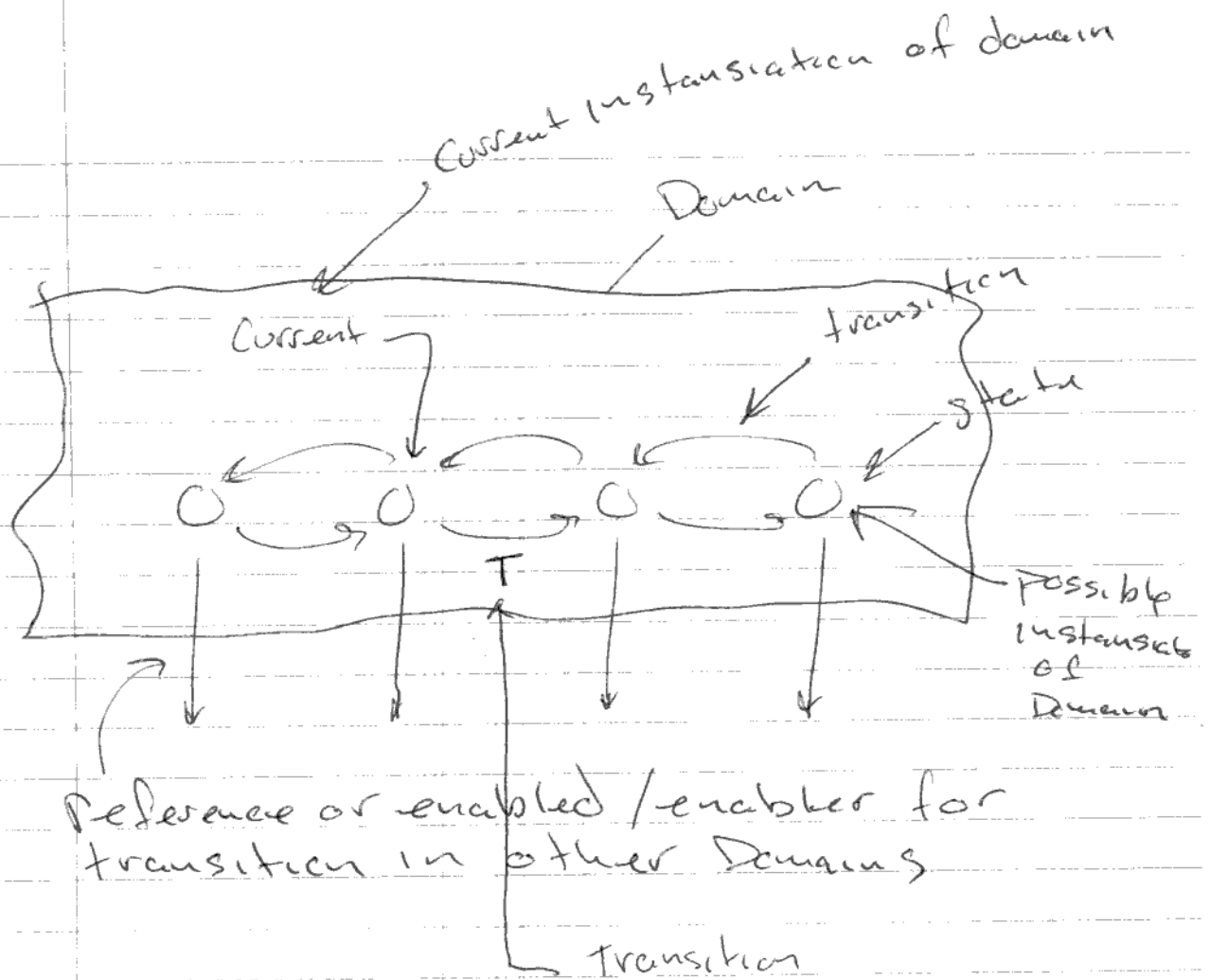Command
Executor

D5 D6 D7

Q) when should a mapper be synthesised

A) when its first referenced ??

Transitioning
A] $X \rightarrow X_{+1}$ ~~creates~~ creates X_{+1}
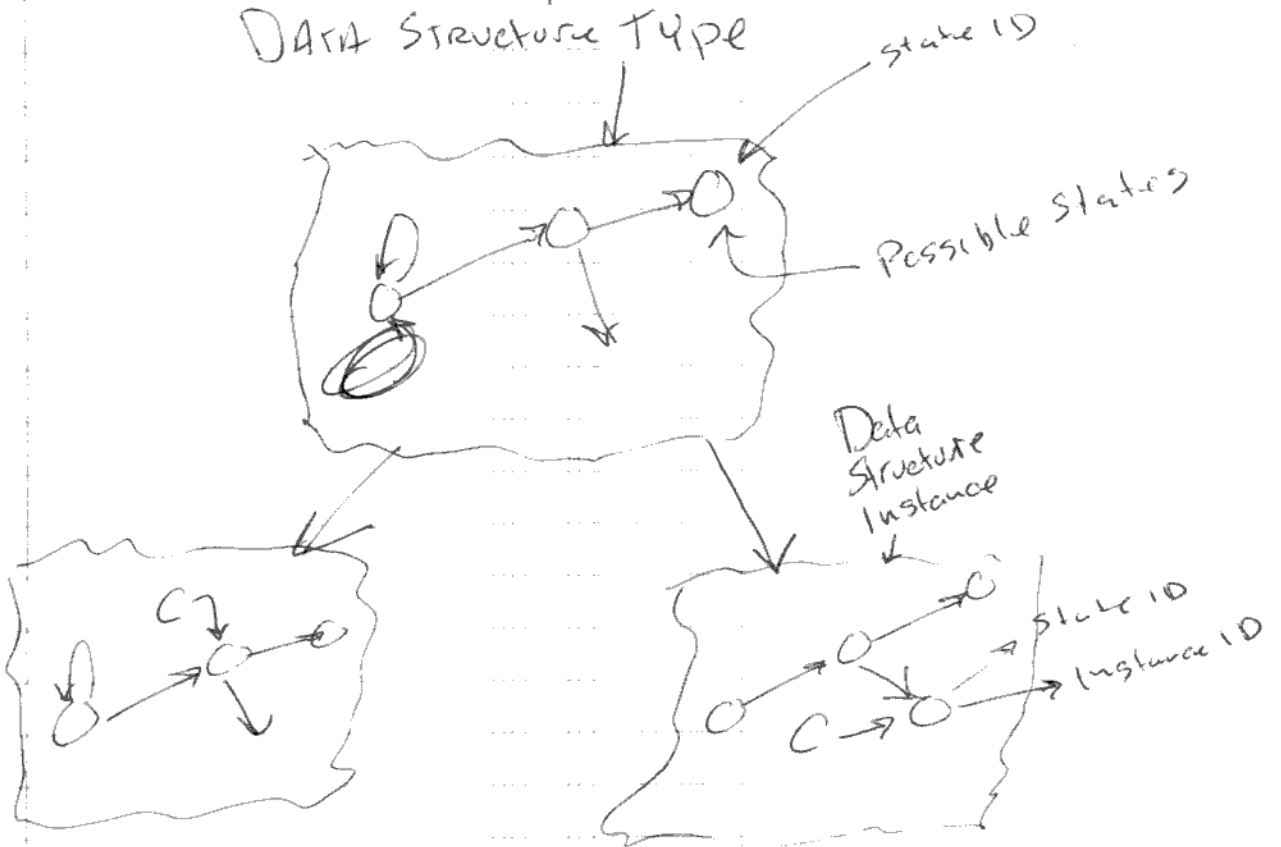Referencing B creates B_{+1}

Current Instantiation of domain

Domain

Current

transition

state

Possible
Instances
of
Domain

T

Reference or enabled /enabler for
transition in other Domains

Transition

How do we do data structure?

Domain Type/
Data Structure Type

state ID

Possible States

Data Structure Instance

state ID
Instance ID

M_{2000}

unlock   adds supe nont instance

$O \longrightarrow$ _____   _____

P_{4321}

D_{500} D_{100} P_{4321}

P_{4321} makes D_{500} visible to ~~D_{100}~~

M_{2000} which act on D_{100}

P_{4321} in D_{100}
    makes D_{500} visible to M_{2000}

M_{2000}
    modifies D_{100} based on D_{500}