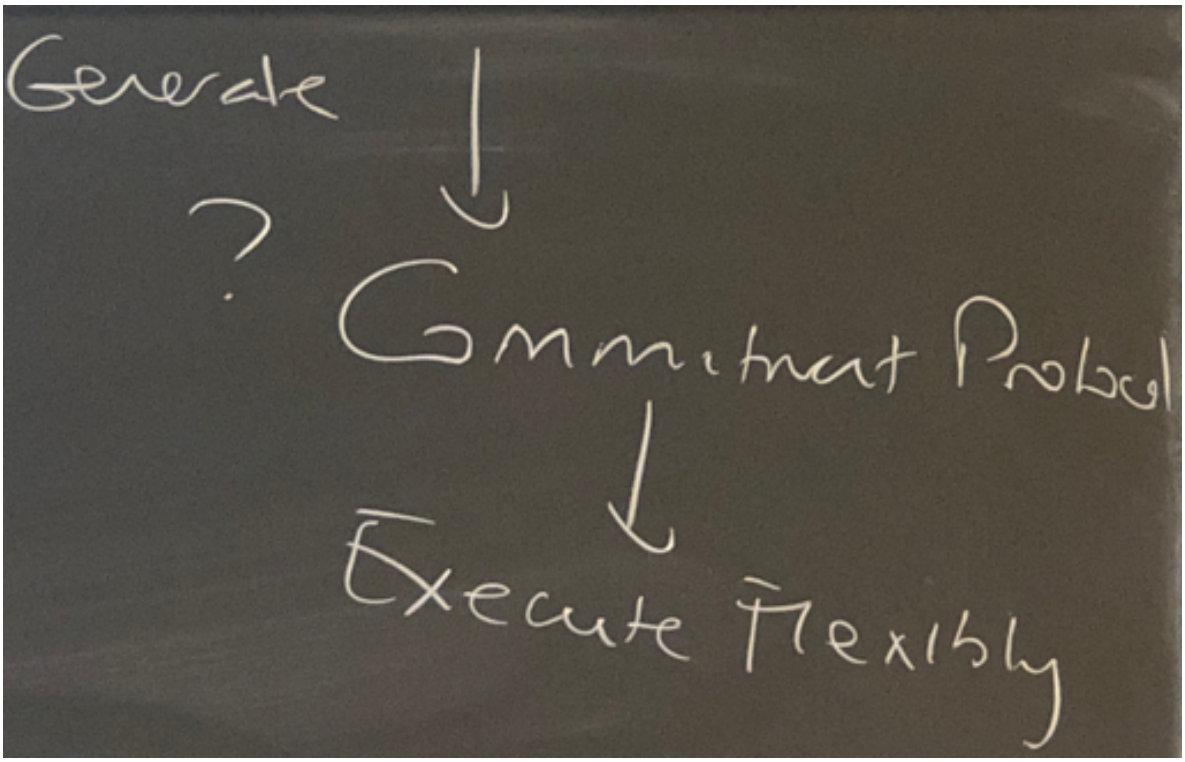
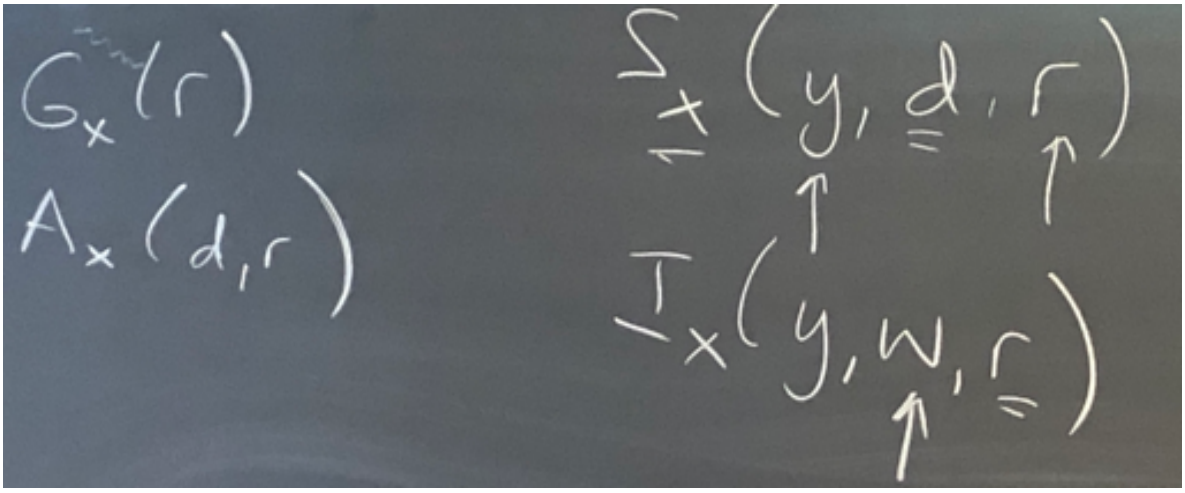
L11 Dynamically generated commitment protocols

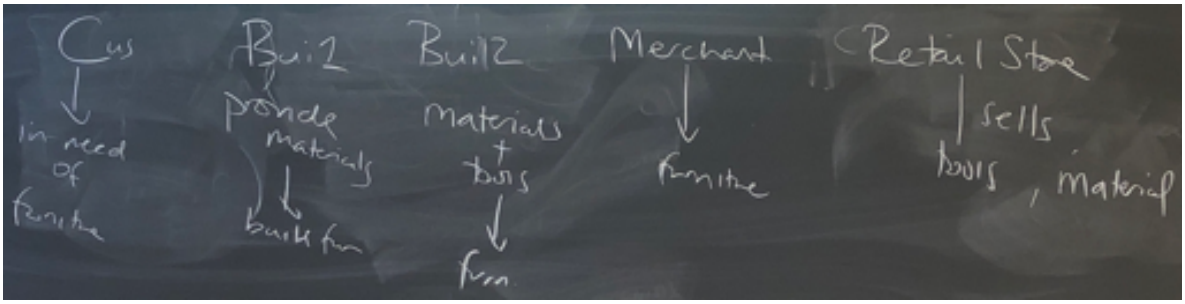


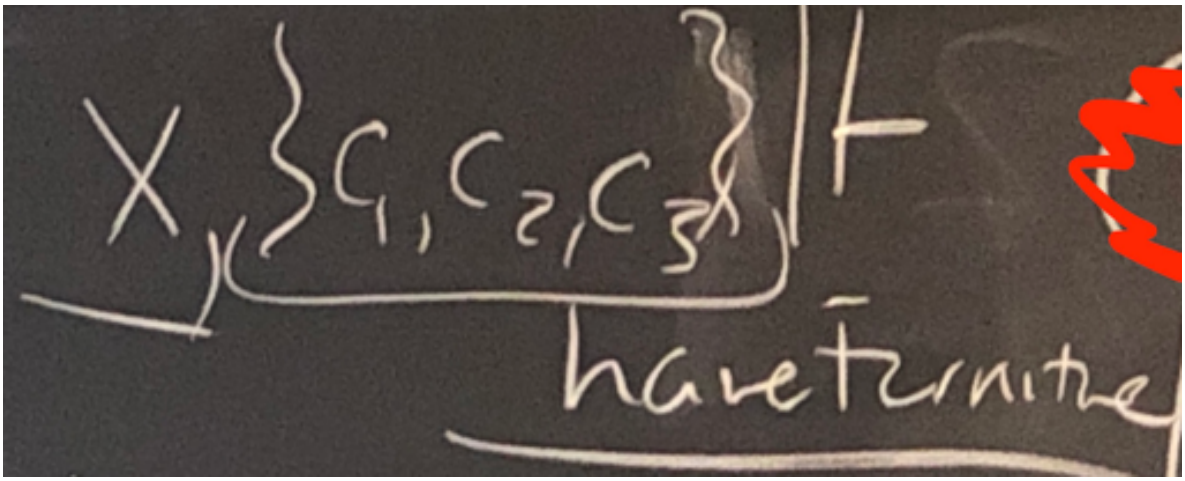
Goal - agent ‘x’ wants ‘r’ to be true in the world
Ability - agent ‘x’ is able to bring about ‘r’ if ‘d’ is true
Belief (service) - agent ‘x’ believes that ‘y’ can do ‘r’ if ‘d’ is true (does not have to be correct as it’s a belief, right ;))
Belief (incentive) - agent ‘x’ believes that ‘y’ has an incentive ‘w’ to do ‘r’



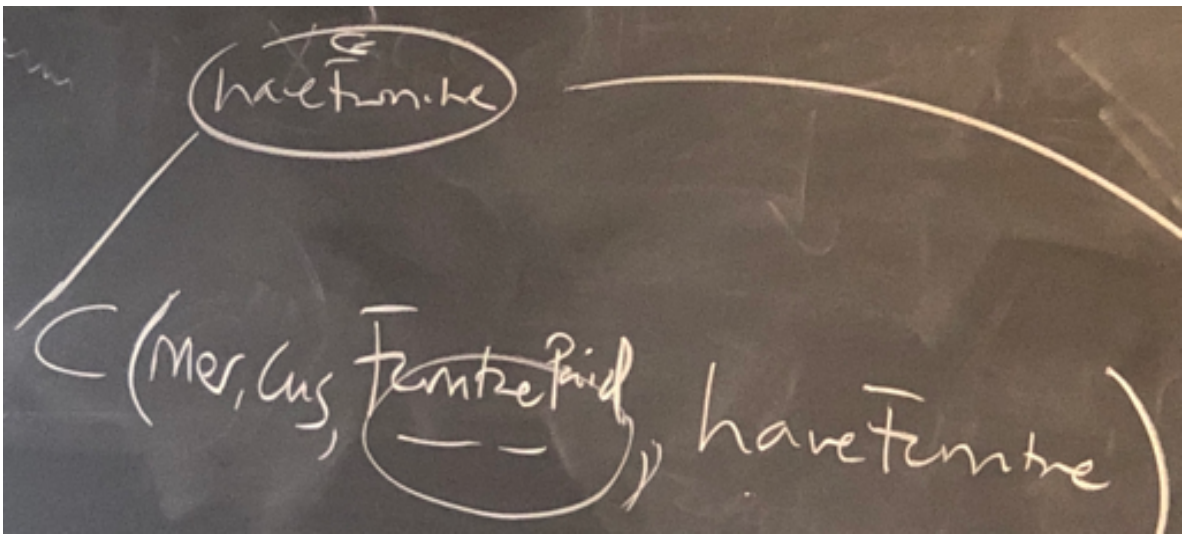
x can support d’ (d-prime) with commitments ‘C’
(x has certain goals, abilities beliefs to work towards the commitments)

Running example from the slides:

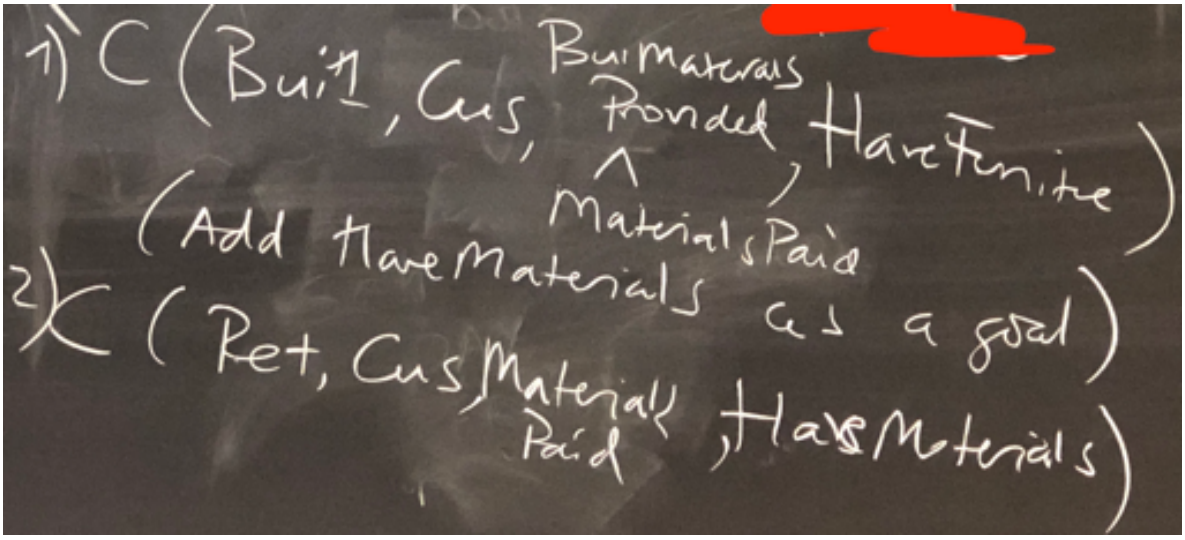




Protocol generation example (1):
‘Cus’ has a belief ’n1’ and will generate a commitment ‘C’ to achieve goal ‘haveFurniture’.



Protocol generation example (2):
‘Cus’ has a belief ’s4’ and will generate a commitment ‘C’ to achieve goal ‘haveFurniture’. The second commitment ‘C’ is for achieving the goal ‘haveMaterials’ to satisfy the first commitment



There are seven protocols generated in the slides where not all will provide you with the valid resolution ‘haveFurniture’. This is because of the high dependancy on the beliefs.

Ranking

Calculating benefit and cost (p5 from the slides)