L7 Trust continues
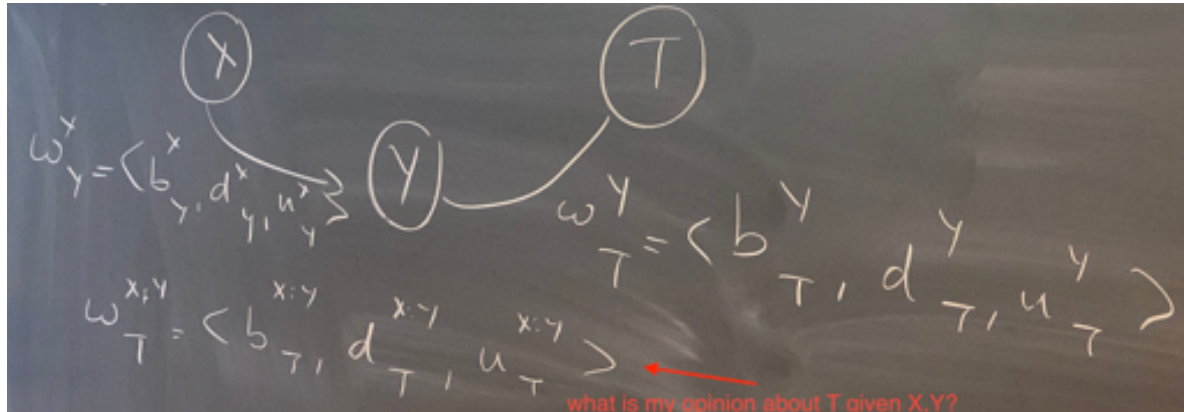
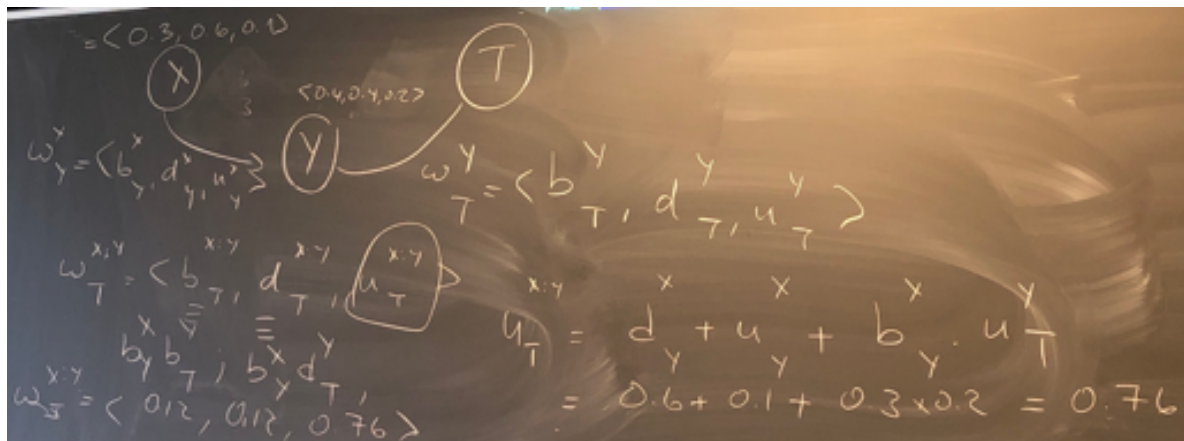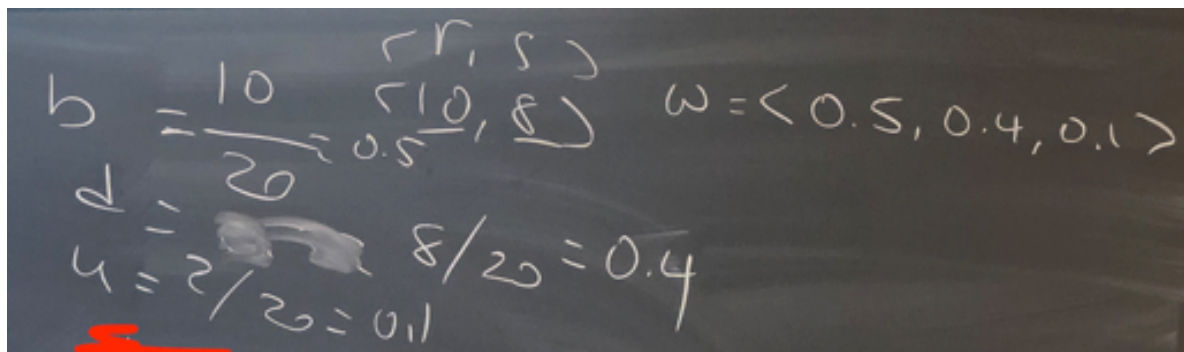## Calculating belief

Example with
X b=0.3, d=0.6, u=0.1
Y b=0.4, d=0.4, u=0.2

Individual belief values via r;s

What is the reputation of T?
_first, you look for agents with beliefs about T
_secondly, merge the beliefs

_third, you find r;s:

$$Rep = \left(E(R) = \frac{r+1}{r+s+2} - 0.5 \right) *2$$

Example (C through B):

$Rep(1.27, 0.36) = \langle 2.4, 0.1 \rangle$

$\frac{2.27}{2.27+1.36} = 0.625$

$u_c = \langle 0.7, 0.2, 0.1 \rangle$

$= (0.625 - 0.5) \times 2 = 0.25$

$$Rep = \left(E(R) = \frac{r+1}{r+s+2} - 0.5 \right) *2$$

$b = \frac{r}{r+s+2}$

$d = \frac{s}{r+s+2}$

$u = \frac{2}{r+s+2}$

$w_c^{A.B} = \langle 0.35, 0.1, 0.55 \rangle \Rightarrow r, s$

$r = 2 \times \frac{b}{u} = 2 \times \frac{0.35}{0.55} = 1.27$

$s = 2 \times \frac{d}{u} = 2 \times \frac{0.1}{0.55} = 0.36$

Example (C through D (in addition to the last r,s from above - I have gained more experience which can just be added to the previous)):

$u_c = \langle 0.7, 0.2, 0.1 \rangle$

$b = \frac{r}{r+s+2}$

$d = \frac{s}{r+s+2}$

$u = \frac{2}{r+s+2}$

$w_c^{A.D} = \langle 0.5, 0.2, 0.3 \rangle \Rightarrow (r, s) \langle 1.27, 0.36 \rangle$

$\frac{5.6}{5.6+2.69} = \frac{r+1}{r+s+2} - 0.5$

$r = 2 \times \frac{b}{u} = 2 \times \frac{0.5}{0.3} = 3.33$

$(r, s) \langle 3.33, 1.33 \rangle$

$s = 2 \times \frac{d}{u} = 2 \times \frac{0.2}{0.3} = 1.33$

$r, s = \langle 4.6, 1.69 \rangle$

Referral Systems
Model
(the main idea - agent can evaluate an answer to the service request)
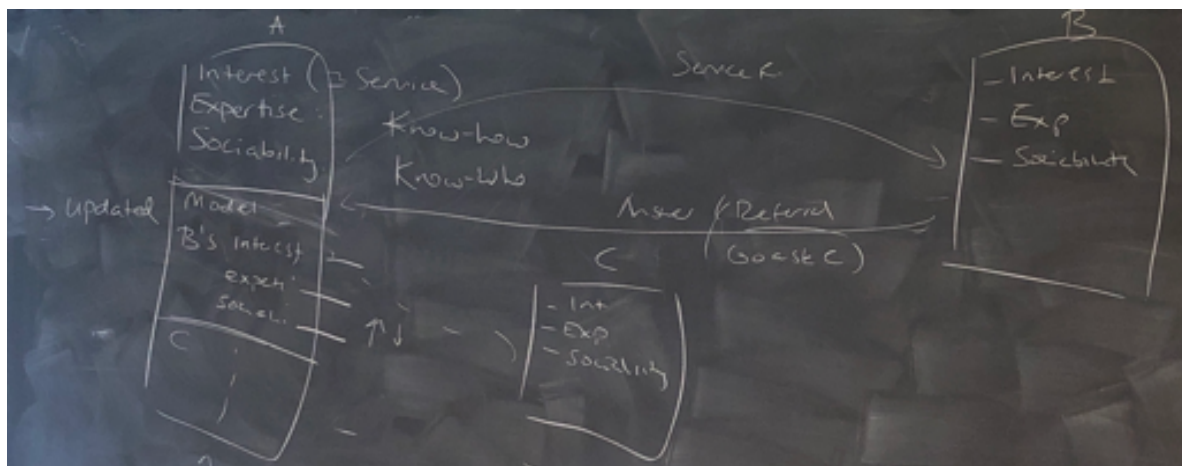
Example (explained in class how the agent 2 decides on giving the answer. Y for straight answer, N for referral based on its own model; the model on agent 2 will be update about the referred agent):