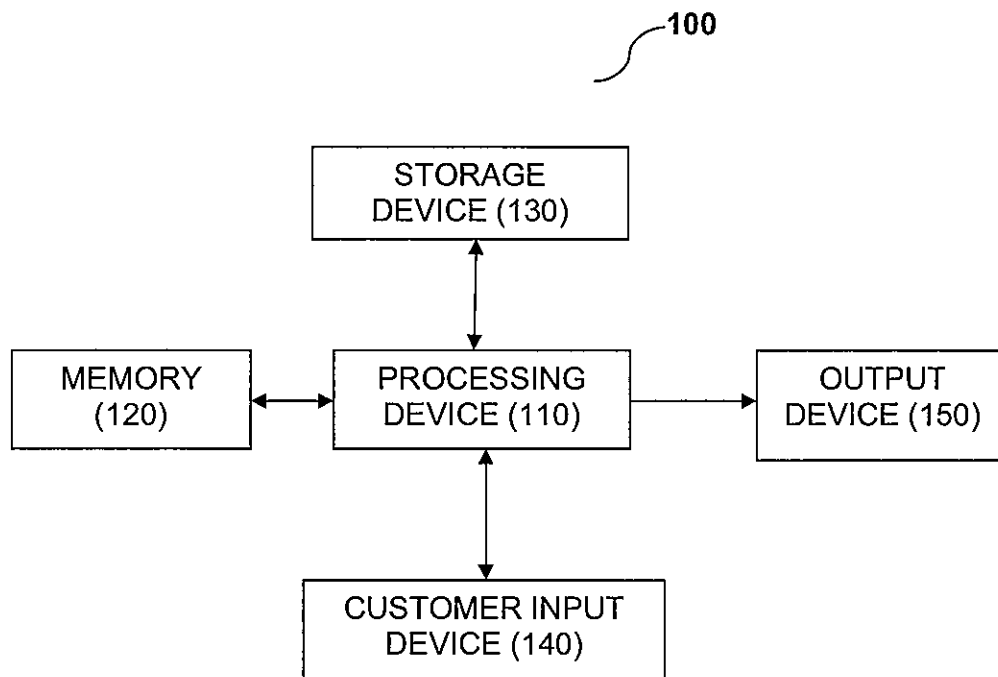


**Figure 1**

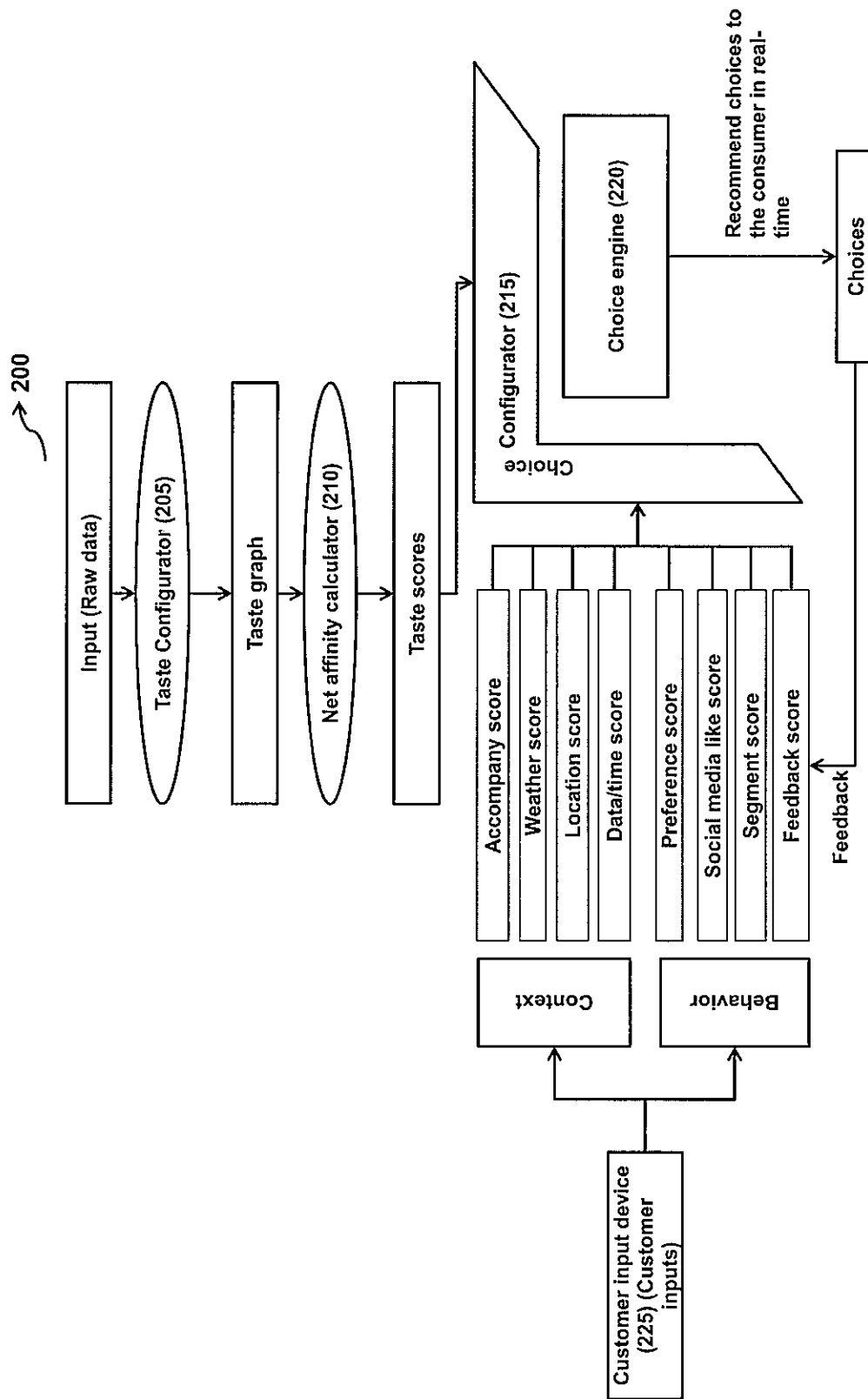


Figure 2

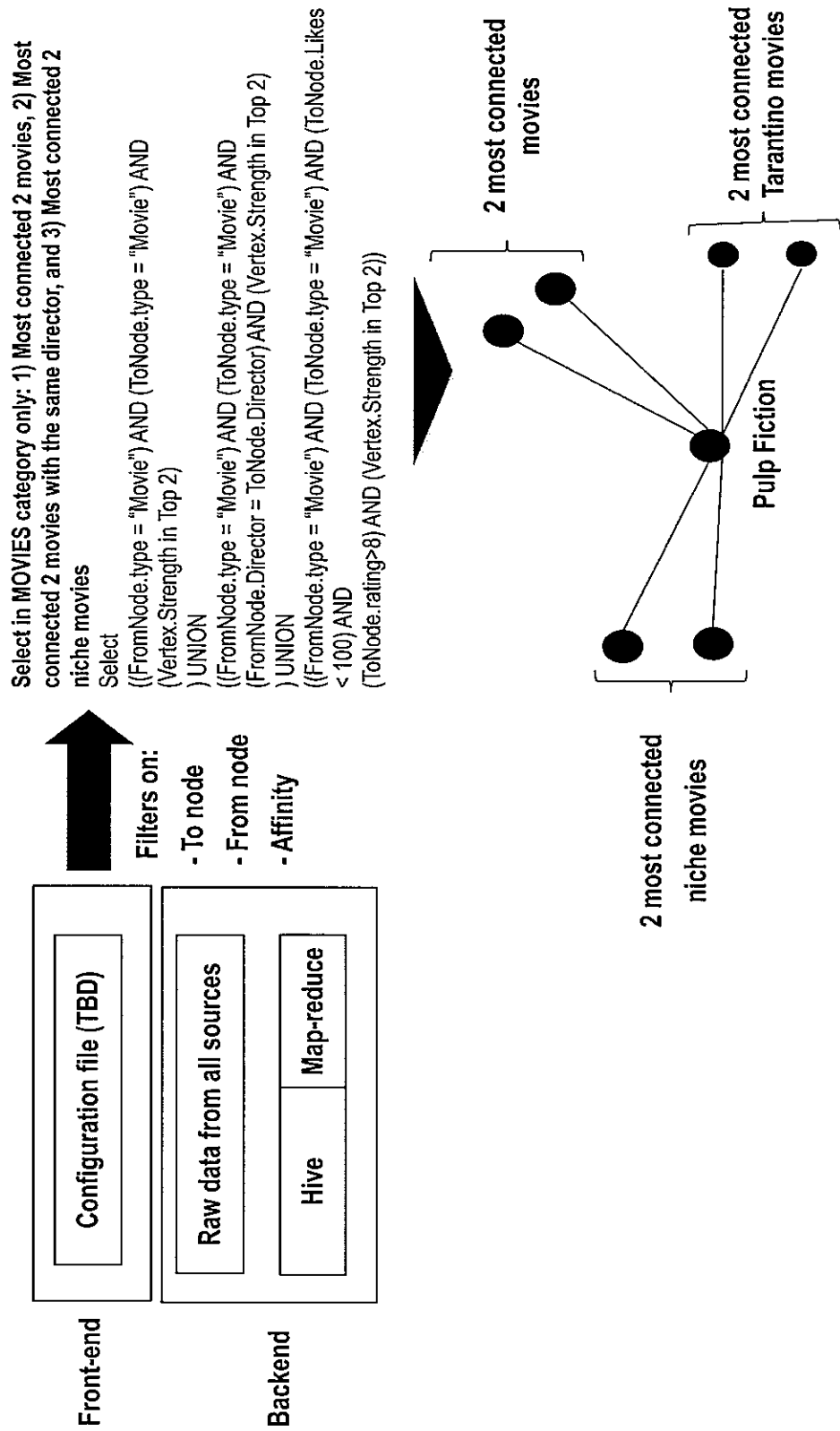


Figure 3

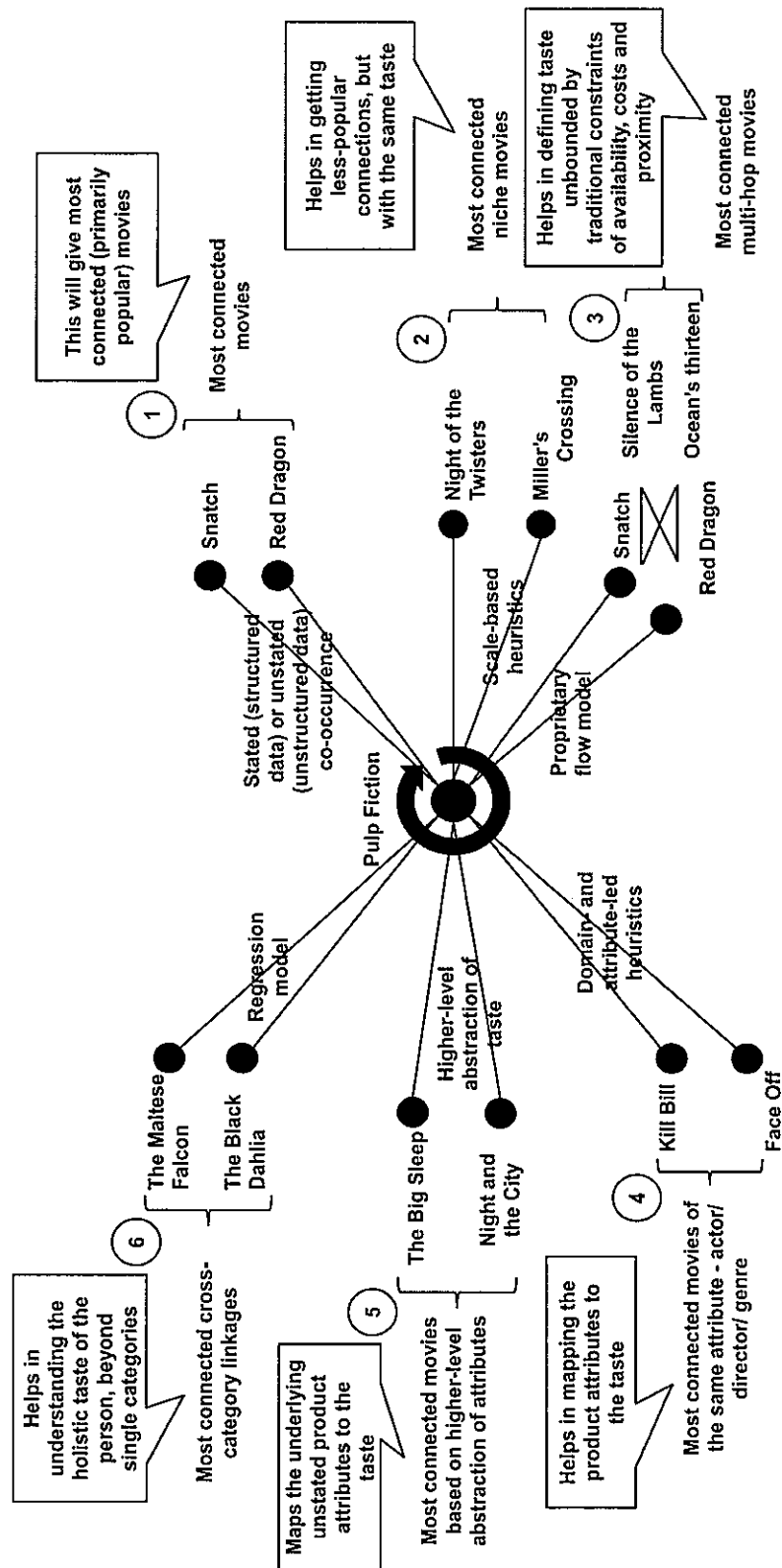


Figure 4

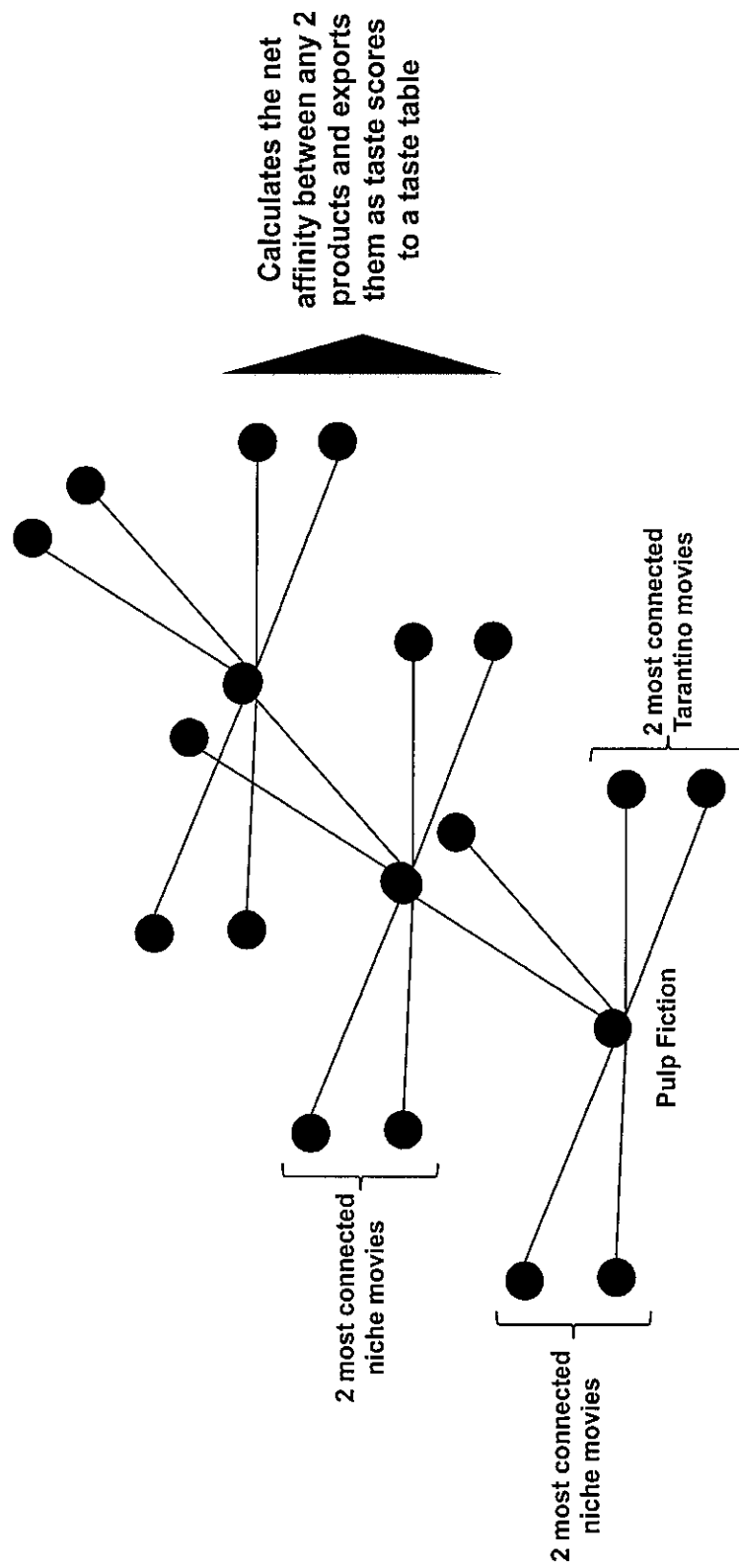
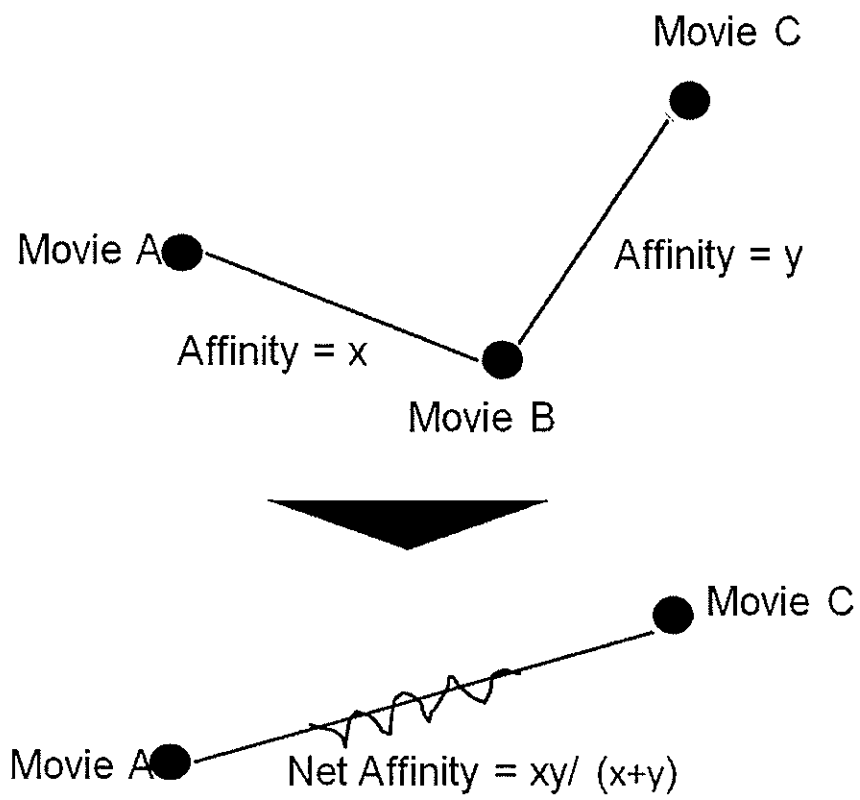


Figure 5

**Figure 6**

$$\begin{aligned}
 \text{NetAffinity}_{P_1,P_2} &= \text{Affinity}_{P_1,P_2} + \frac{1}{\sum_n \left(\frac{1}{\text{Affinity}_{P_1,P_n}} + \left(\frac{1}{\text{Affinity}_{P_n,P_2}} \right) \right)} + \frac{1}{\sum_{n,p} \left(\frac{1}{\text{Affinity}_{P_1,P_n}} + \left(\frac{1}{\text{Affinity}_{P_n,P_p}} \right) + \left(\frac{1}{\text{Affinity}_{P_p,P_2}} \right) \right)} + \frac{1}{\sum_{n,p,q} \left(\frac{1}{\text{Affinity}_{P_1,P_n}} + \left(\frac{1}{\text{Affinity}_{P_n,P_p}} \right) + \left(\frac{1}{\text{Affinity}_{P_p,P_q}} \right) + \left(\frac{1}{\text{Affinity}_{P_q,P_2}} \right) \right)} \\
 &\quad \dots \text{for_higher_depths}
 \end{aligned}$$

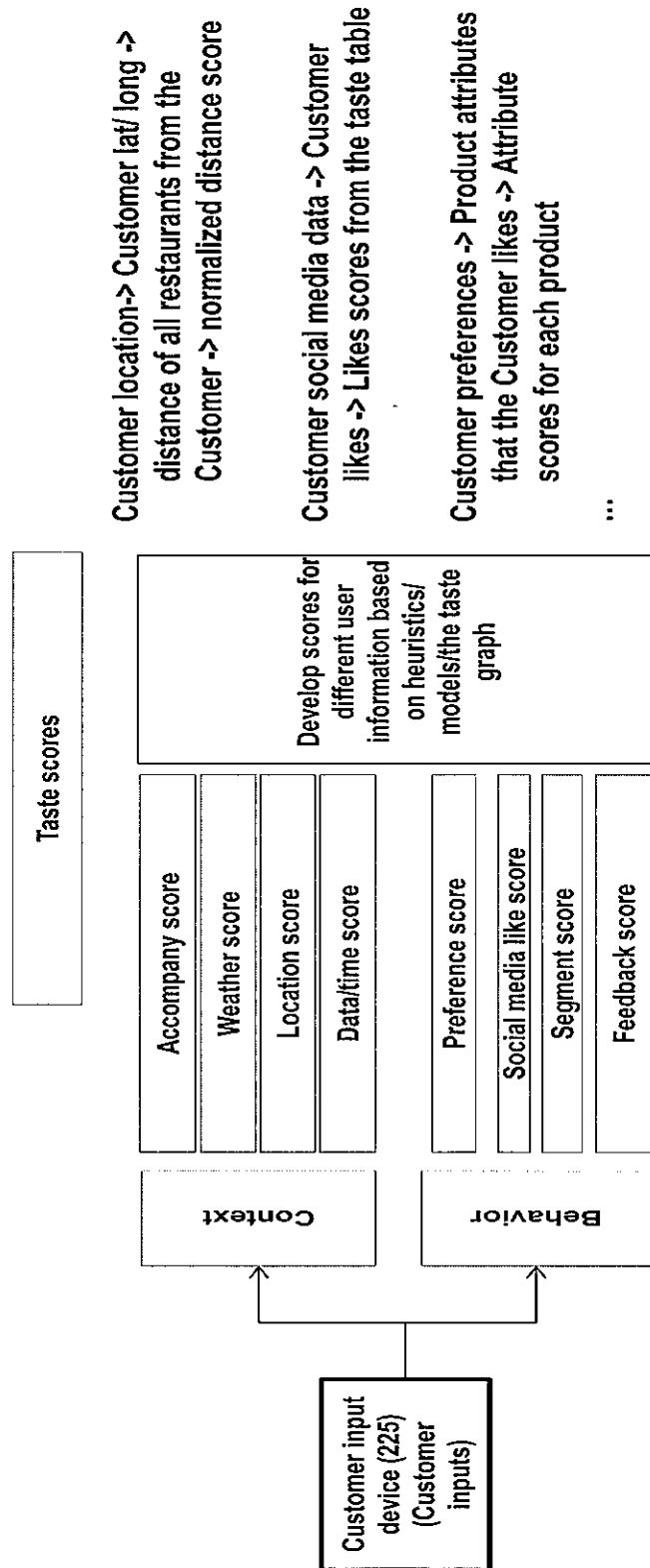
First degree of depth

Second degree of depth

Third degree of depth

Fourth degree of depth

Figure 7



Customer location -> Customer lat/ long -> distance of all restaurants from the Customer -> normalized distance score

Customer social media data -> Customer likes -> Likes scores from the taste table

Customer preferences -> Product attributes that the Customer likes -> Attribute scores for each product

...

Figure 8

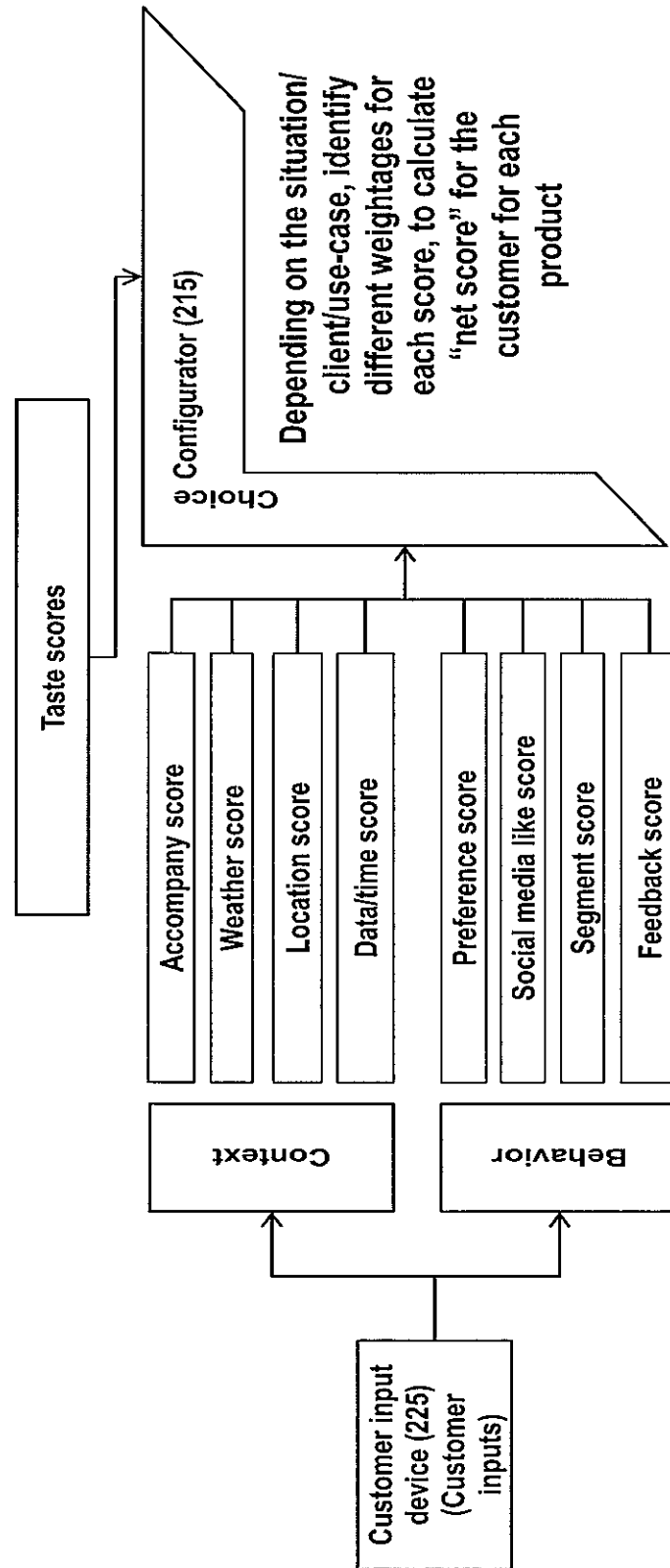


Figure 9

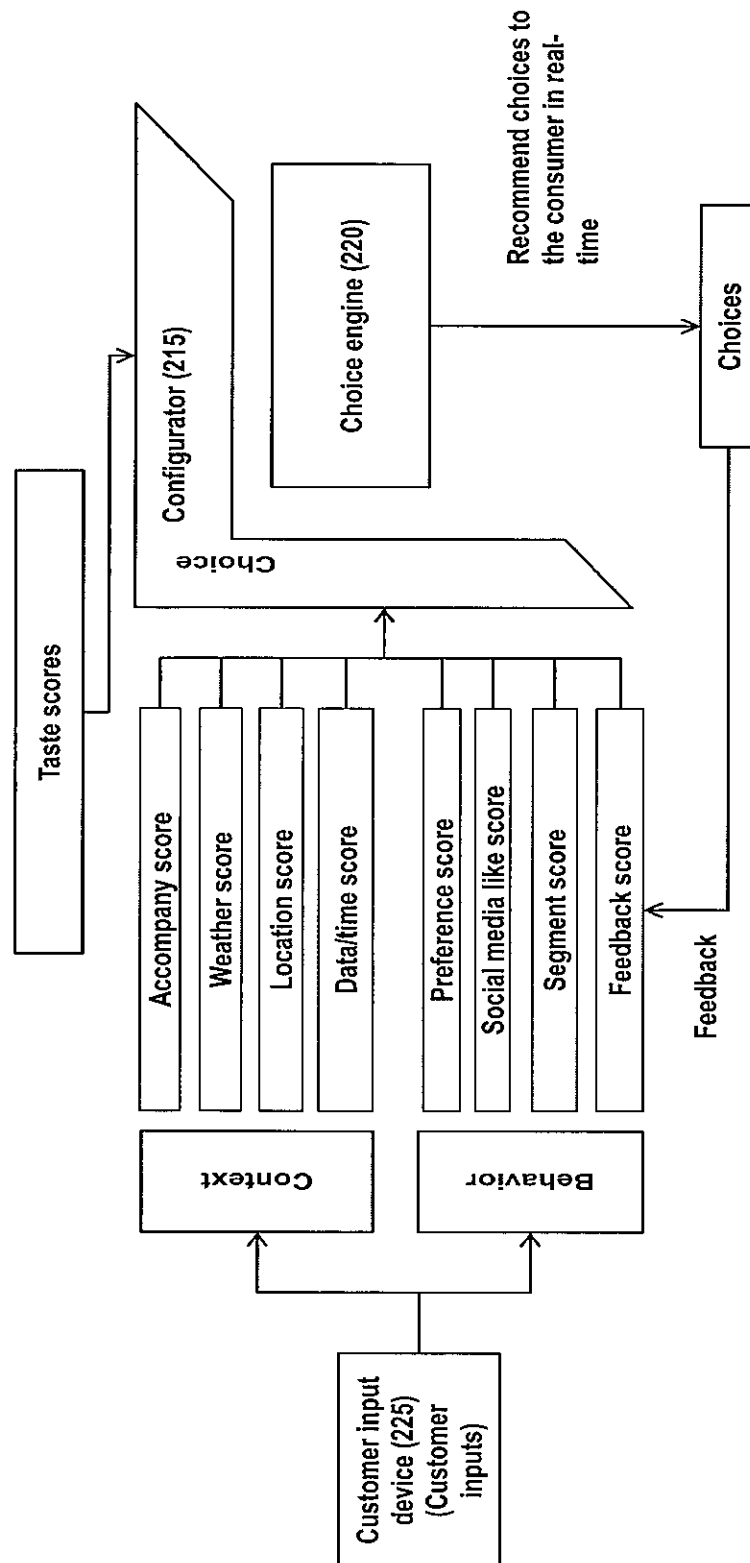


Figure 10

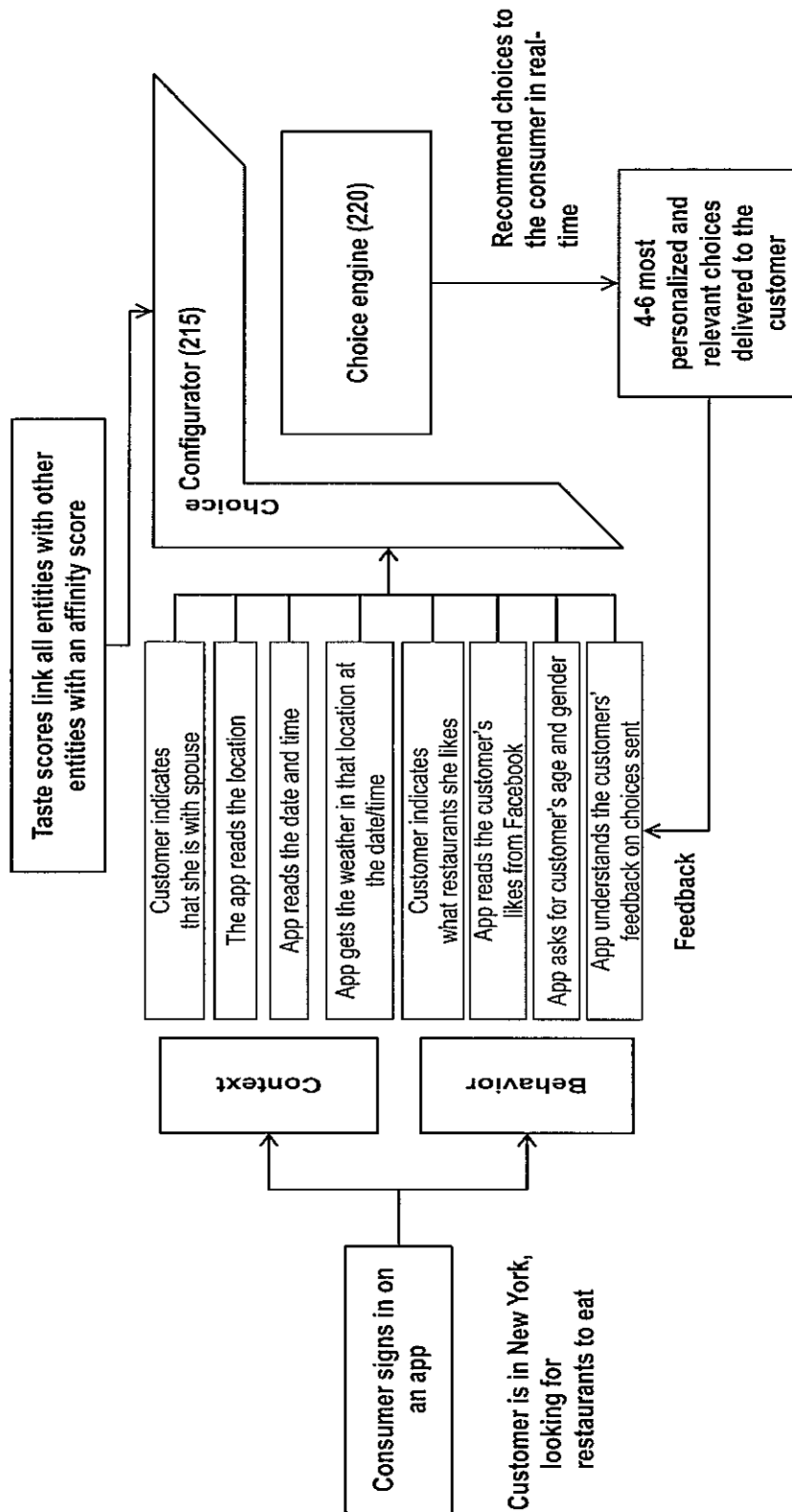


Figure 11