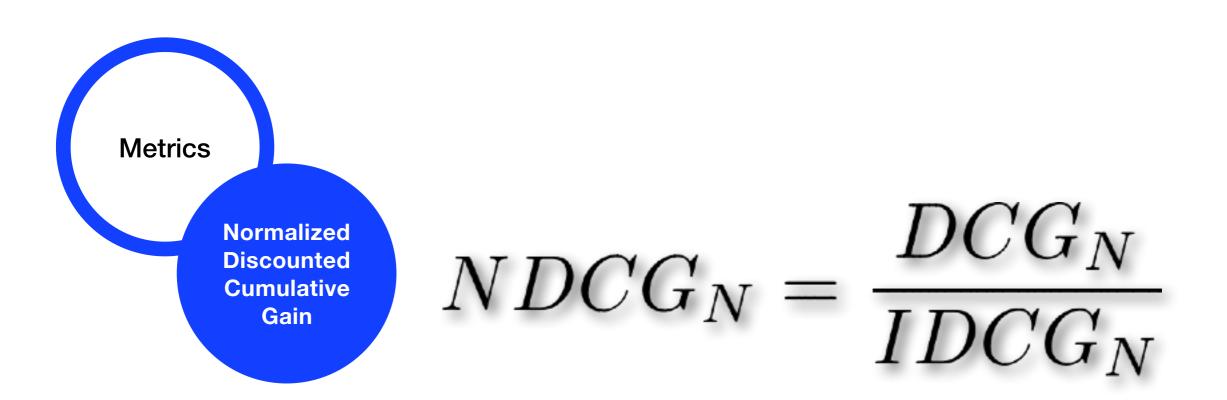
**Metrics** 

Normalized
Discounted
Cumulative
Gain

$$NDCG_N = \frac{DCG_N}{IDCG_N}$$

$$DCG_N = \sum_{i=1}^{N} \frac{rel_i}{\log_2(i+1)}$$





$$IDCG_N = \sum_{i=1}^{N} \frac{1.0}{\log_2(i+1)}$$

