Online Learning Setting: (Metrics @K) | Cumulative Performance across all Cluster Pairs 1.0 1.0 Heterogeneous User Heterogeneous User Homogeneous User Homogeneous User 8.0 8.0 0.6 0.6 Precision F1-Score 0.4 0.4 0.2 0.2 0.0 ← 0.0 25 50 75 125 25 50 75 125 100 150 175 100 150 175 N Articles Recommended N Articles Recommended 1.0 Heterogeneous User Homogeneous User 8.0 0.6 Recall 0.4 0.2

25

50

75

100

N Articles Recommended

125

175

150