

RESULT – ALGORITHM ON TRANSACTION DATA

2016-08-01 ~ 2017-08-01 > 2017-11-01				Overall						
	ALS ProductID	ALS Agg	ALS Agg Color	FP ProductID	FP Agg	FP Agg Color		K-nn ProductID	K-nn Agg	k-NN Agg Color
MAP:							Cosine, K=20	TF-IDF, K=100	TF-IDF, k=100	TF-IDF, k=100
MAP@1	0.17%	4.96%	2.29%	0.14%	2.04%	1.60%	0.11%	0.25%	2.17%	0.81%
MAP@3	0.19%	4.32%	2.07%	0.10%	1.83%	1.49%	0.10%	0.16%	1.90%	0.71%
MAP@5	0.20%	4.40%	2.14%	0.09%	1.87%	1.56%	0.10%	0.16%	2.04%	0.74%
MAP@10	0.21%	4.60%	2.30%	0.09%	1.93%	1.64%	0.10%	0.17%	2.23%	0.80%
MAP@20	0.23%	4.83%	2.45%	0.09%	1.95%	1.67%	0.11%	0.17%	2.38%	0.87%
MAP@30	0.24%	4.92%	2.51%	0.09%	1.95%	1.67%	0.11%	0.18%	2.46%	0.89%
MAP@40	0.24%	4.99%	2.55%	0.09%	1.95%	1.67%	0.11%	0.18%	2.52%	0.91%
MAP@50	0.25%	5.03%	2.58%	0.09%	1.95%	1.67%	0.11%	0.18%	2.55%	0.92%
MAP@60	0.25%	5.06%	2.60%	0.09%	1.95%	1.67%	0.11%	0.19%	2.58%	0.93%
MAP@70	0.26%	5.08%	2.62%	0.09%	1.95%	1.67%	0.12%	0.19%	2.60%	0.94%
MAP@80	0.26%	5.10%	2.63%	0.09%	1.95%	1.67%	0.12%	0.19%	2.61%	0.94%
MAP@90	0.26%	5.11%	2.64%	0.09%	1.95%	1.67%	0.12%	0.19%	2.63%	0.95%
MAP@100	0.26%	5.13%	2.65%	0.09%	1.95%	1.67%	0.12%	0.19%	2.64%	0.95%

- ALS: alternating least square.
- K-nn: k nearest neighbour
- FP: Frequent Pattern Growth
- ProductID: trained on Product ID level data
- Agg: combinaison @Brand-Gender-Subcategory
- Agg Color: combinaison @Brand-Gender-Subcategory-Color

RESULT – DATA ALS & K-NN

Transactional Data (Binary) (2017-01-16 to 2017-12-24 2017-11-06)		
	ALS	k-nn
MAP		
MAP@1	0.17%	0.11%
MAP@3	0.18%	0.12%
MAP@5	0.20%	0.11%
MAP@10	0.23%	0.12%
MAP@20	0.25%	0.14%
MAP@30	0.26%	0.14%
MAP@40	0.27%	0.15%
MAP@50	0.27%	0.15%
MAP@60	0.28%	0.15%
MAP@70	0.28%	0.15%
MAP@80	0.28%	0.15%
MAP@90	0.28%	0.16%
MAP@100	0.28%	0.16%

Browsing Data on Nbr hits (2017-01-16 to 2017-12-24 2017-11-06)		
	ALS	K-nn
	6.13%	6.08%
	4.14%	3.96%
	3.32%	3.17%
	2.45%	2.32%
	1.88%	1.75%
	1.67%	1.53%
	1.56%	1.42%
	1.50%	1.35%
	1.46%	1.31%
	1.44%	1.28%
	1.42%	1.26%
	1.41%	1.24%
	1.41%	1.23%

ALS: alternating least square.
K-nn: k nearest neighbour
Binary: Purchased or Not
Nbr Hits: recorded hits/interactions