

Results for the SVD algorithm

h	Loss male	Loss female	Group Unfairness	Individual Unfairness
Initial	64.2712	64.0210	0.0157	0.0722
1	49.4999	46.0568	2.9637	0.0378
2	49.4987	46.0582	2.9593	0.0378
3	49.5002	46.0584	2.9614	0.0378
4	49.5003	46.0564	2.9651	0.0378

Table 1: Results for the SVD algorithm with gender-based groups.

h	Children	Teenager	Adult	Elder	Group Unfairness	Individual Unfairness
Initial	23.4828	48.7850	65.6288	44.1351	225.6457	0.07216
1	24.3676	39.0797	49.5971	37.6458	80.2993	0.03831
2	24.3607	39.0703	49.5957	37.6499	80.3304	0.03828
3	24.3367	39.0745	49.5953	37.6486	80.4905	0.03830
4	24.3491	39.0751	49.5964	37.6468	80.4155	0.03829

Table 2: Results for the SVD algorithm with age-based groups.

h	CA	IL	MN	NY	TX	Rest	Group Unfairness	Individual Unfairness
Initial	67.4483	59.8881	61.5345	87.1139	59.5295	62.3443	93.3078	0.0722
1	51.3226	46.6256	46.4730	54.0469	46.0797	47.4750	8.8485	0.0381
2	51.3230	46.6296	46.4719	54.0479	46.0818	47.4742	8.8473	0.0381
3	51.3238	46.6325	46.4740	54.0511	46.0800	47.4754	8.8515	0.0381
4	51.3265	46.6377	46.4721	54.0469	46.0810	47.4750	8.8433	0.0382

Table 3: Results for the SVD algorithm with states-based groups.

h	Blockbuster	Diversed	Niched	Group Unfairness	Individual Unfairness
Initial	20.6032	49.1364	122.6704	1848.7868	0.0722
1	21.4763	41.1574	81.9055	633.2713	0.0382
2	21.4780	41.1585	81.9045	633.2145	0.0382
3	21.4764	41.1595	81.9006	633.1489	0.0382
4	21.4760	41.1587	81.9039	633.2361	0.0382

Table 4: Results for the SVD algorithm with popularity-based groups.