

100

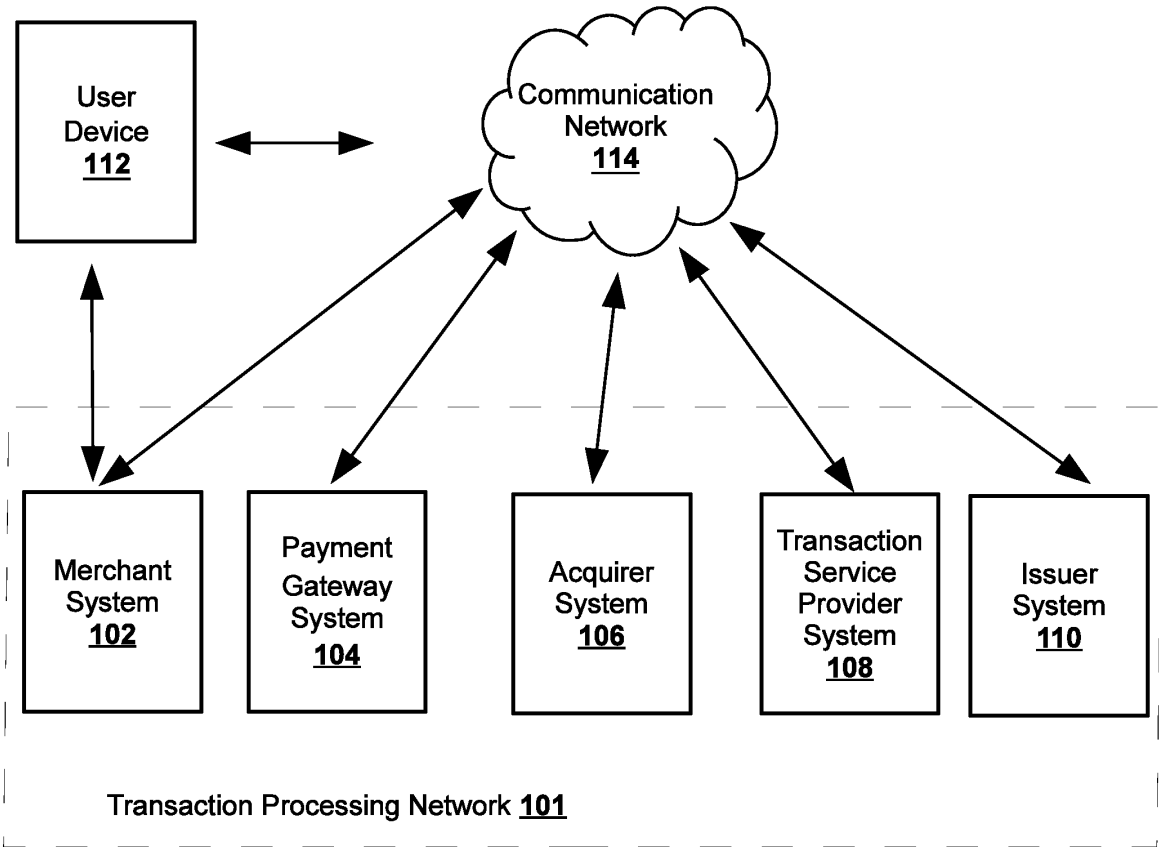


FIG. 1

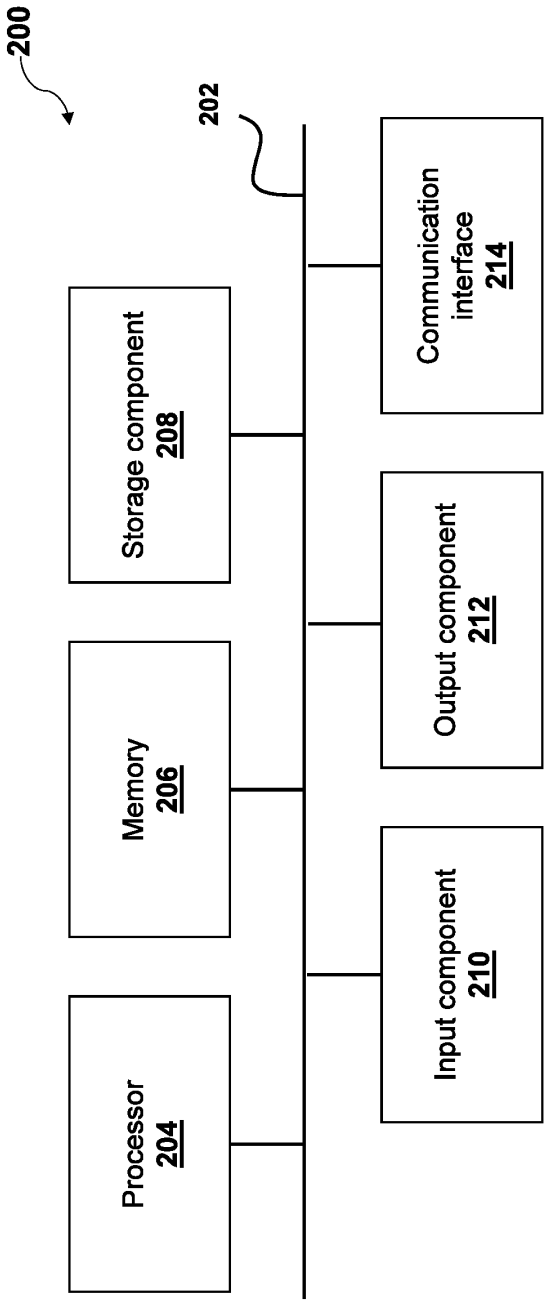


FIG. 2

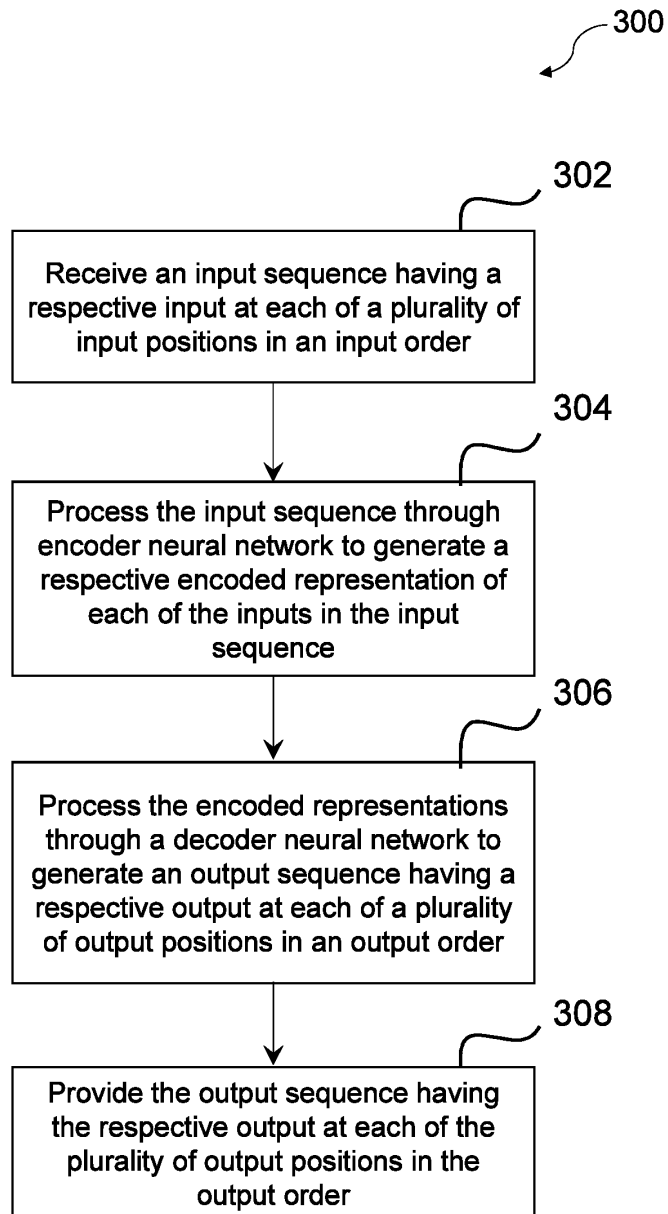


FIG. 3

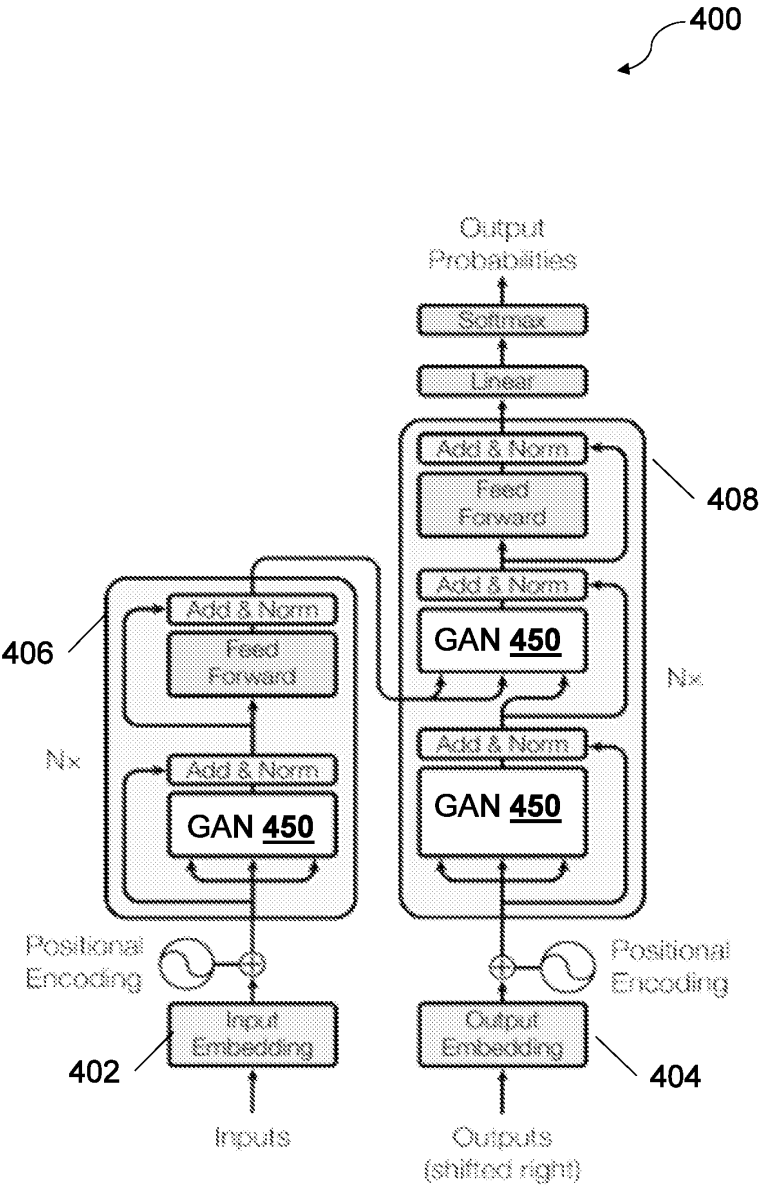


FIG. 4A

450

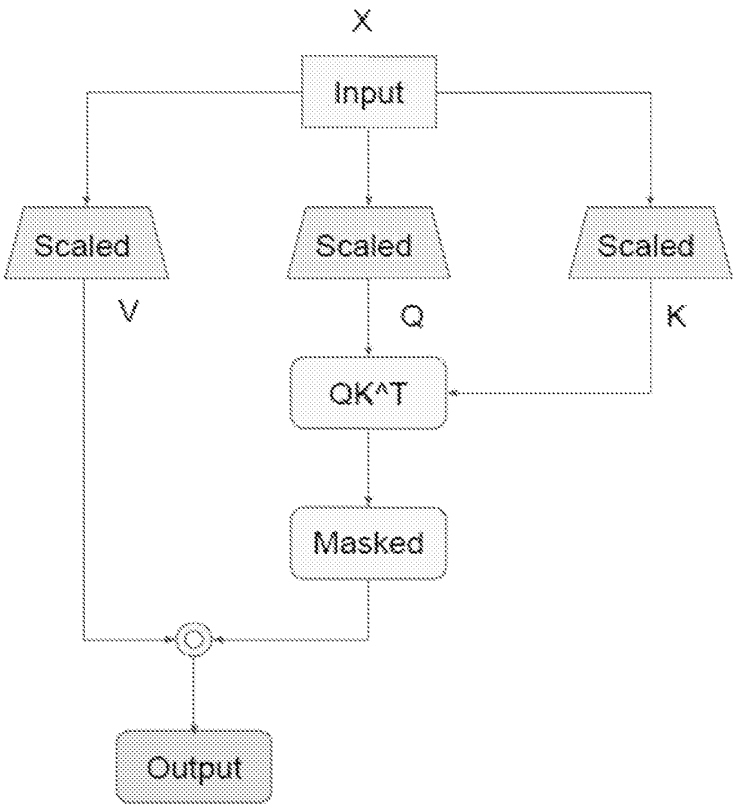


FIG. 4B

500

Dataset statistics (after preprocessing)					
Dataset	users	items	avg. actions /user	avg. actions /item	actions
Amazon-Beauty	52,024	57,289	7.6	6.9	0.4M
Amazon-Games	31,013	23,715	9.3	12.1	0.3M
Steam	334,730	13,047	11.0	282.5	3.7M
MovieLens	6,040	3,416	163.5	289.1	1.0M
Retailrocket	321,032	51,428	---	---	0.8M
Yoochoose	470,477	19,690	---	---	1.0M

FIG. 5

600

The performance results of RMSE,

Dataset	Beauty	Games	Steam
ours	0.50	0.42	0.20
Transformer	0.62	0.49	0.26

FIG. 6

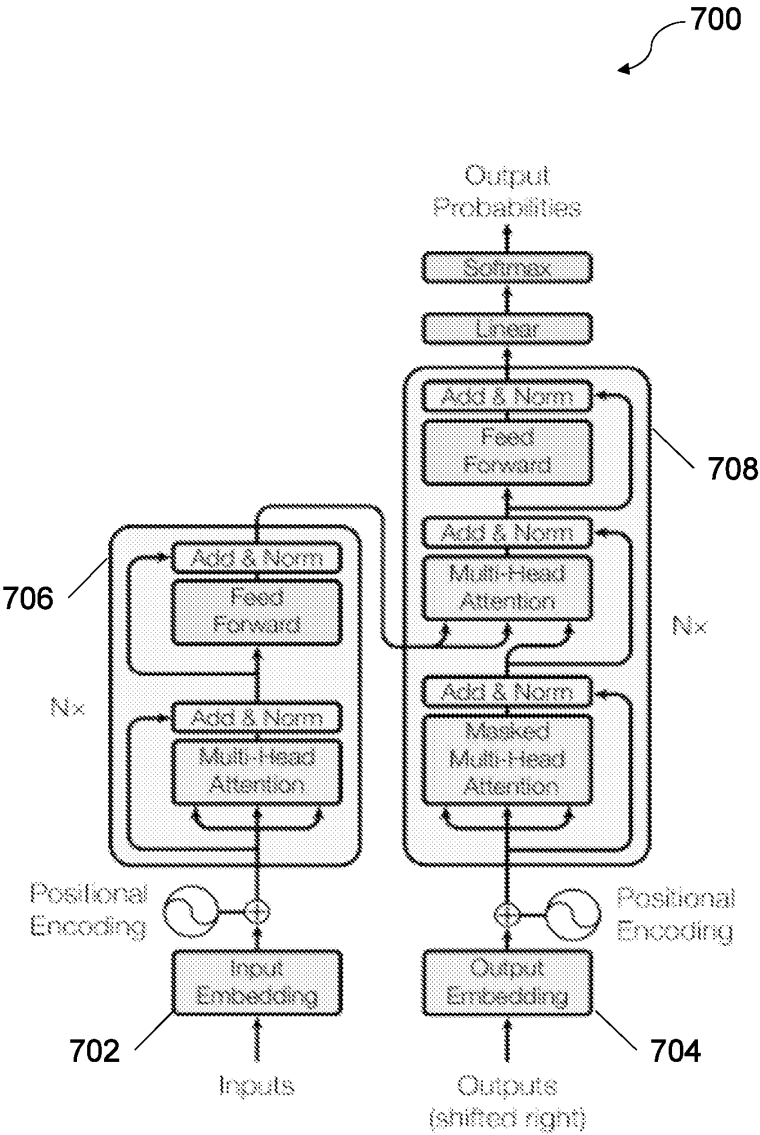


FIG. 7
(Related Art)