

user \ article					
	1	2	3	4	5
1	✓	✗	✓	?	?
2	✓	✓	?	?	✓
3	✗	?	✓	✗	✗
4	?	✓	?	✗	?
5	✗	?	✓	✓	?

(a) in-matrix prediction

user \ article					
	1	2	3	4	5
1	✓	✗	✓	?	?
2	✓	✓	✗	?	?
3	✗	✗	✓	?	?
4	✗	✓	✓	?	?
5	✗	✓	✓	?	?

(b) out-of-matrix prediction