

u	a user
i	a social media item
I_u	the set of u 's social media items
c	a concept
C	the set of concepts
d	a candidate item (scientific publication)
D	the set of candidate items
t_i, t_d	the time stamp of i and d , respectively
P_u	u 's user profile
P_d	d 's document profile
Φ	a profiling function
w'	a weighting function (not considering temporal decay)
f	a decay function
w	a weighting function that extends w' with temporal decay
σ	a similarity function