

Notation	Description
U	Set of all users
S	Set of screened users
T	Set of winning users
i, j	User i and User j in set U
n	Total number of users
Γ	The platform's set of tasks
t_k	Task k in set Γ
m	Total number of sensing tasks
χ_k	Value of task k
$\chi(\tau)$	The value of tasks in τ
v_i	Value of all tasks performed by user i
$v(S)$	Value of tasks performed by users in S
$v_i(S)$	Marginal value of user i , given set S
b_i	Bid of user i
p_i	Payment made to user i
c_i	Cost incurred by user i
τ_i	Set of tasks performed by user i
$\tau(S)$	Set of tasks performed by users in S
$\tau_i(S)$	Marginal tasks done by user i , given set S
ω_i	Personal or intrinsic utility of user i
u_i	Platform utility of user i
$u(S)$	Platform utility of users in S
$u_i(S)$	Marginal utility of user i , given set S
γ_i	Minimum replacement user's bid
$\sigma_i(S)$	Difference of marginal value and bid