

PWS Cup 2019

TEAM 004 (またぼっち, BOTCH AGAIN)

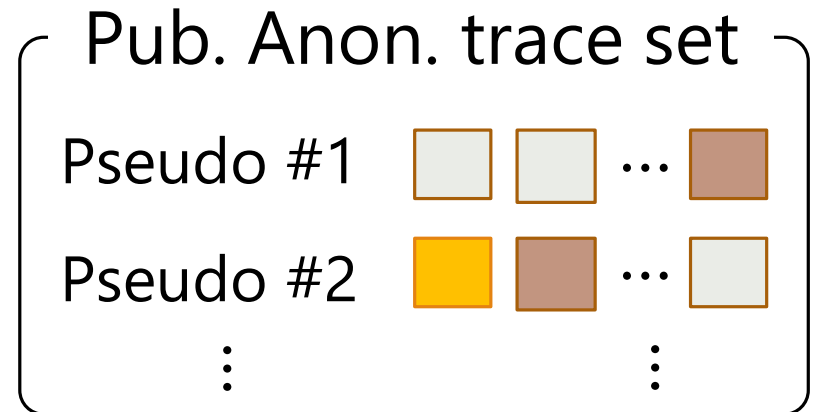
Lonely

To foul up hopelessly

Topic

- Data anonymization technique (IDP)
- Data anonymization technique (TRP)
- ID disclosure technique
- Trace inference technique

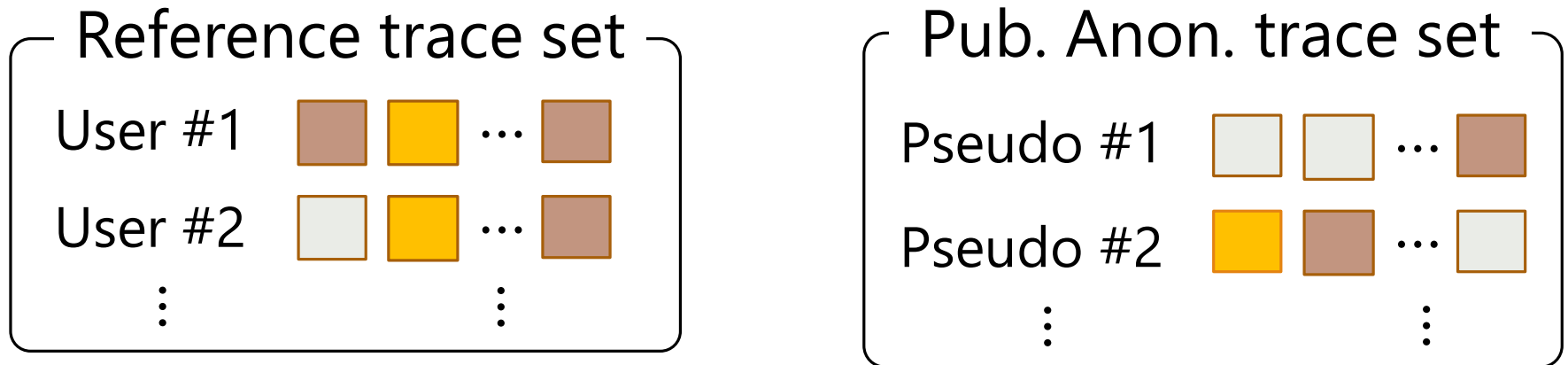
Basic strategy: feature vector comparison



Find the nearest
vector (user)



Partial knowledge model



Similar tendency, but not fully equal

Need to cope with "partially trustworthy"
information (= reference trace set)

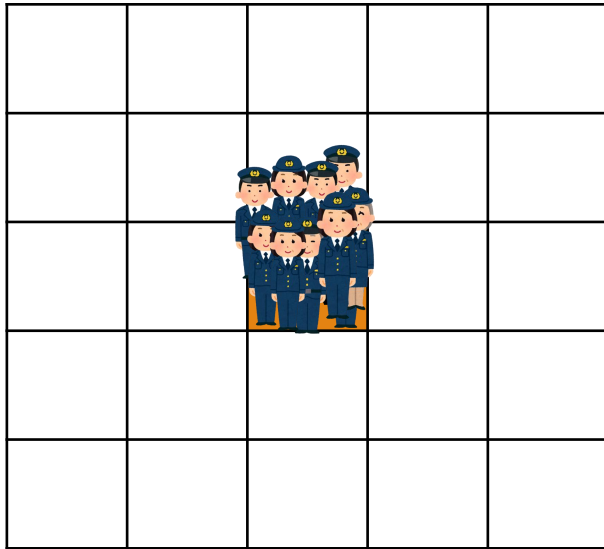
Metaphor: **fully** trustworthy

		A		

Suspect regularly
witnessed at
Region A



Metaphor: **fully** trustworthy



Suspect regularly
witnessed at
Region A



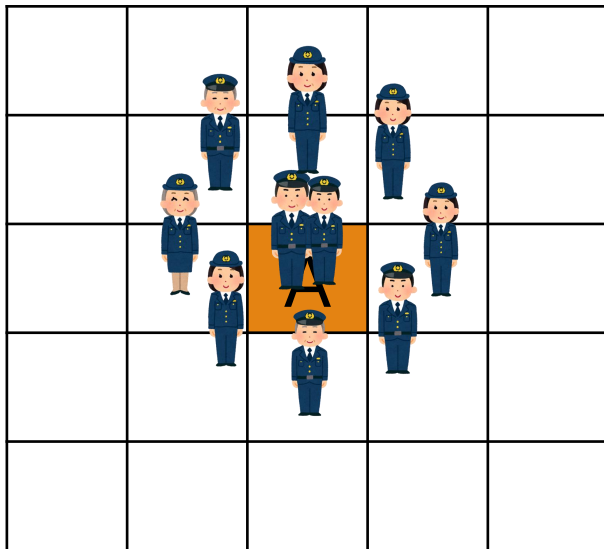
Metaphor: **partially** trustworthy

		A		

Suspect regularly
witnessed
**somewhere near
Region A**



Metaphor: **partially** trustworthy



Suspect regularly
witnessed
**somewhere near
Region A**



➔ Incorporated this metaphor when generating feature vectors from the reference trace set

For more information...

Example:

0	0	0	0	0
0	0.099	0.121	0.099	0
0	0.121	0.20	0.121	0
0	0.099	1.121	0.099	0
0	0	0	0	0

Fuzzy counting
($n_0 = 0.2, \lambda = 0.5$)

0	0	0	0	0
0	0	0	0	0
0	0	1	0	0
0	0	0	0	0
0	0	0	0	0

Raw counting
(equiv. to $n_0 = 1, \lambda = \infty$)

Come and visit my poster session (team #004) to find more about the techniques used in the contest 😊