



HUSO 2021 July 18 - 22, 2021 Nice, France

An Investigation of When Japanese Twitter Users Deleted Their Tweets Disclosing Their Personal Information

Yasuhiko Watanabe, Leo Mashimo, Toshiki Nakano,
Hiromu Nishimura, and Yoshihiro Okada

watanabe@rins.ryukoku.ac.jp

Ryukoku University

presenter information

- Doctor of Informatics
- Lecturer, Ryukoku University,
Kyoto, Japan



Yasuhiko Watanabe

our research interest

- communications in SNS
- user behavior analysis
- trust and security in SNS

background



some SNS users willingly disclose
their personal information

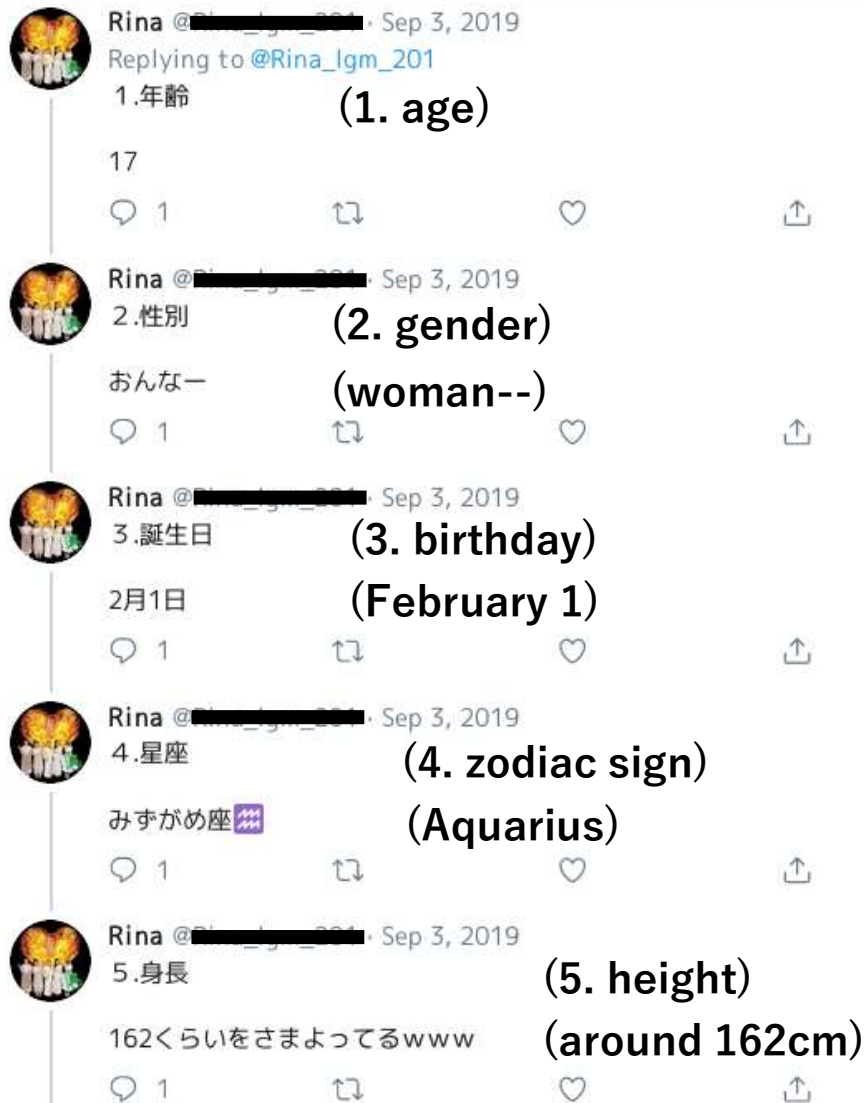
SNS users [

- real name users
- unreal name users

Reliability of real name & unreal name users

Many of us think that
personal information disclosed by

- real name users  reliable
- unreal name users  unreliable



An example:
a SNS user, Rina, disclosed
her personal information

Many of us do not think
Rina (or unreal name users)
disclosed her personal info.
honestly

[reason]
no merit for her to disclose
her personal info. honestly

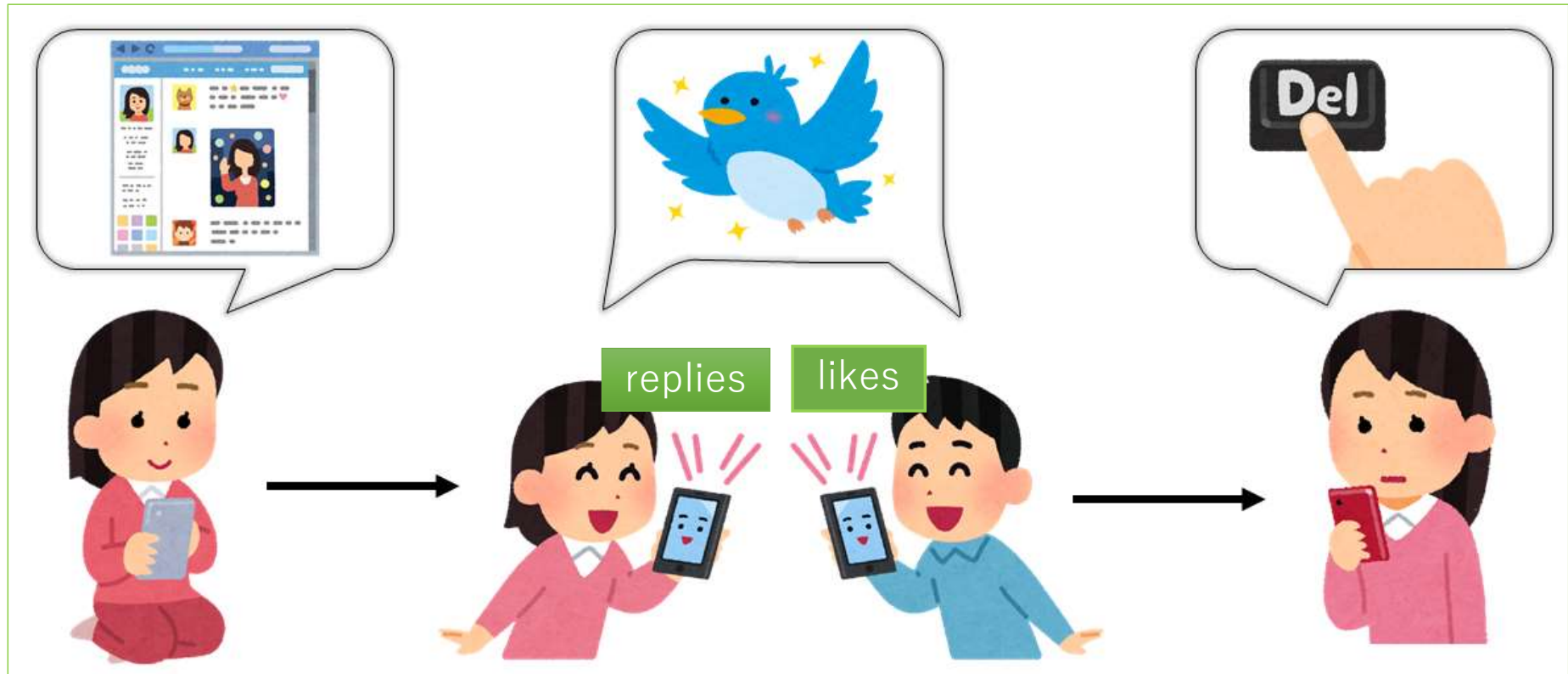
Our research result in HUSO 2020

many unreal name users
disclosed their personal info. honestly.

Watanabe, Nishimura, Chikuki, Nakajima, and Okada:

An Investigation of Twitter Users Who Disclosed
Their Personal Profile Items in Their Tweets Honestly,
IARIA HUSO 2020 (2020).

How they disclosed their personal info.



promising to disclose
his/her personal info.

communication with his/her audiences
(by using replies & likes)

deleting his/her tweets
disclosing his/her info.

They submitted the same # of replies disclosing their personal info. as likes to their tweets

Example Rina's self-disclosing tweets

self-replies disclosing submitters' personal info.

tweets promising to disclose submitters' personal information

Rina @ [redacted] · Sep 3, 2019
面白そうだからやるー！ (I will do it because it looks fun.)
#いいねの数だけ自己紹介する (# I will show the same number of my profile items as your likes.)

いいねの数だけ自己紹介する

- | | | |
|------------------------|-----------------|----------------|
| 1. 年齢 (1. age) | 26. 好きな人 | 51. Twitter垢の数 |
| 2. 性別 (2. gender) | 27. 彼氏・彼女いる？ | 52. 休日の過ごし方 |
| 3. 誕生日 (3. birthday) | 28. 告白した数 | 53. 起床時間 |
| 4. 星座 (4. zodiac sign) | 29. 言われた数 | 54. 家出る時間 |
| 5. 身長 (5. height) | 30. 近のマイブーム | 55. 家帰ってくる時間 |
| 6. 足のサイズ ...etc. | 31. 日常生活で欠かせない物 | 56. 寝る時間 |
| 7. 性格 | 32. 好きな小説家 | 57. 1番楽しかったこと |
| 8. 眼鏡の有無 | 33. 最近見た映画 | 58. 1番幸せなこと |
| 9. 長所 | 34. 好きな歌手 | 59. 1番辛かったこと |
| 10. 短所 | 35. 得意料理 | 60. 1番悔しかったこと |
| 11. 趣味 | 36. 口癖 | 61. 1番驚いたこと |
| 12. 特技 | 37. 小さい頃の夢 | 62. 辛い時どうする？ |
| 13. 好きなタイプ | 38. 今の夢 | 63. ストレス発散方法 |
| 14. 嫌いなタイプ | 39. 今か昔やってたスポーツ | 64. リア友の数 |

1 1 37

Show this thread

Rina @ [redacted] · Sep 3, 2019
Replying to @Rina_lgm_201

1. 年齢 (1. age)

17

1

Rina @ [redacted] · Sep 3, 2019

2. 性別 (2. gender)

おんなー

1

Rina @ [redacted] · Sep 3, 2019

3. 誕生日 (3. birthday)

2月1日

1

Rina @ [redacted] · Sep 3, 2019

4. 星座 (4. zodiac sign)

みずがめ座

1

Rina @ [redacted] · Sep 3, 2019

5. 身長 (5. height)

162くらいをさまよってるwww

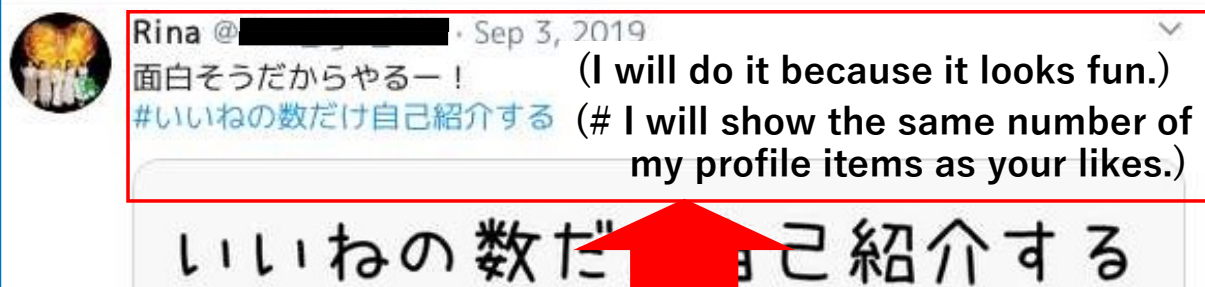
1

(around 162cm)

Example Rina's self-disclosing tweets

self-replies disclosing submitters' personal info.

tweets promising to disclose submitters' personal information



Rina played a self-disclosing game

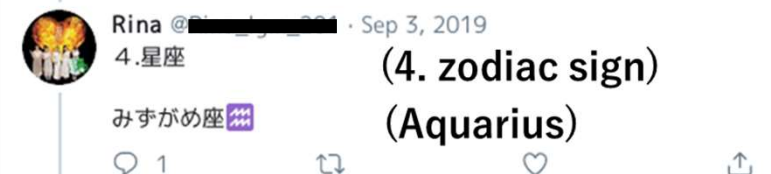
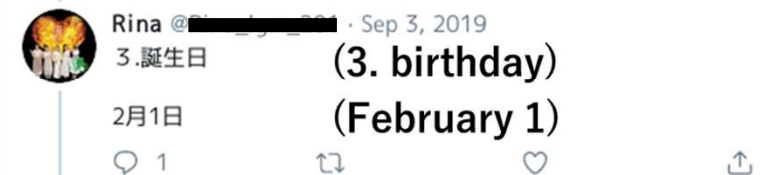
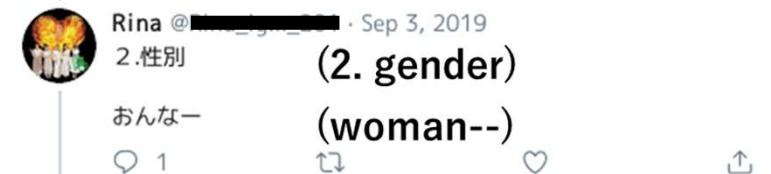
Rina made a promise to disclose the same number of her personal profile items as likes to her tweet. (Sep. 3, 2019)

1

1

37

Rina submitted 35 replies on Sep. 3-9, 2019

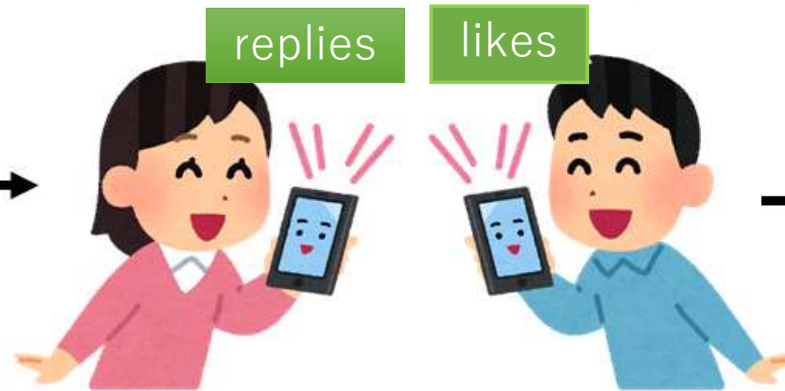


Our research points in HUSO 2021

when & how unreal name users
submitted & deleted their tweets
disclosing their personal information

We investigate periods from

- ① promising to deleting tweets
- ② promising to submitting last replies
(the end of communication)
- ③ submitting last replies to deleting tweets



promising to disclose
his/her personal info.

communication with his/her audiences
(by using replies & likes)

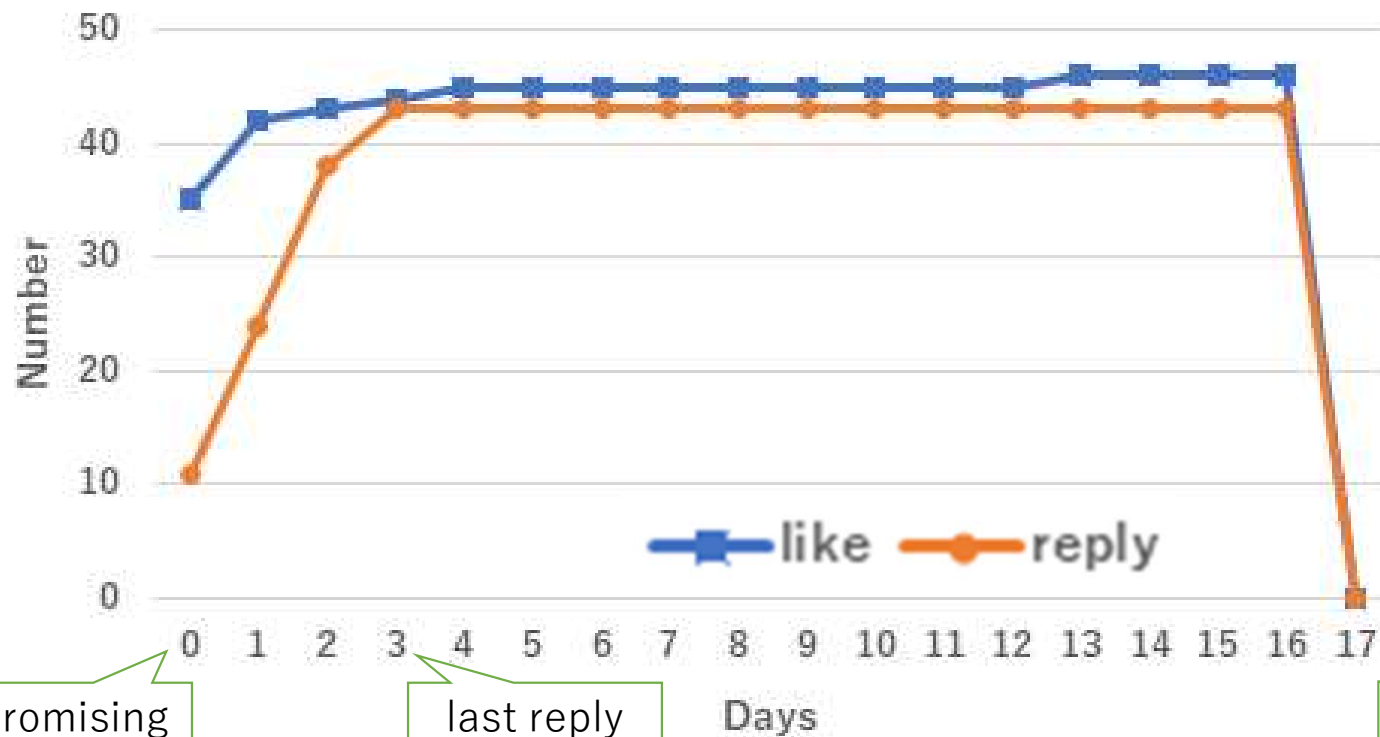
deleting his/her tweets
disclosing his/her info.

period ①

period ②

period ③

Example The change of **likes** and **replies** to a tweet promising to disclose personal information



period	days
①	17
②	3
③	14

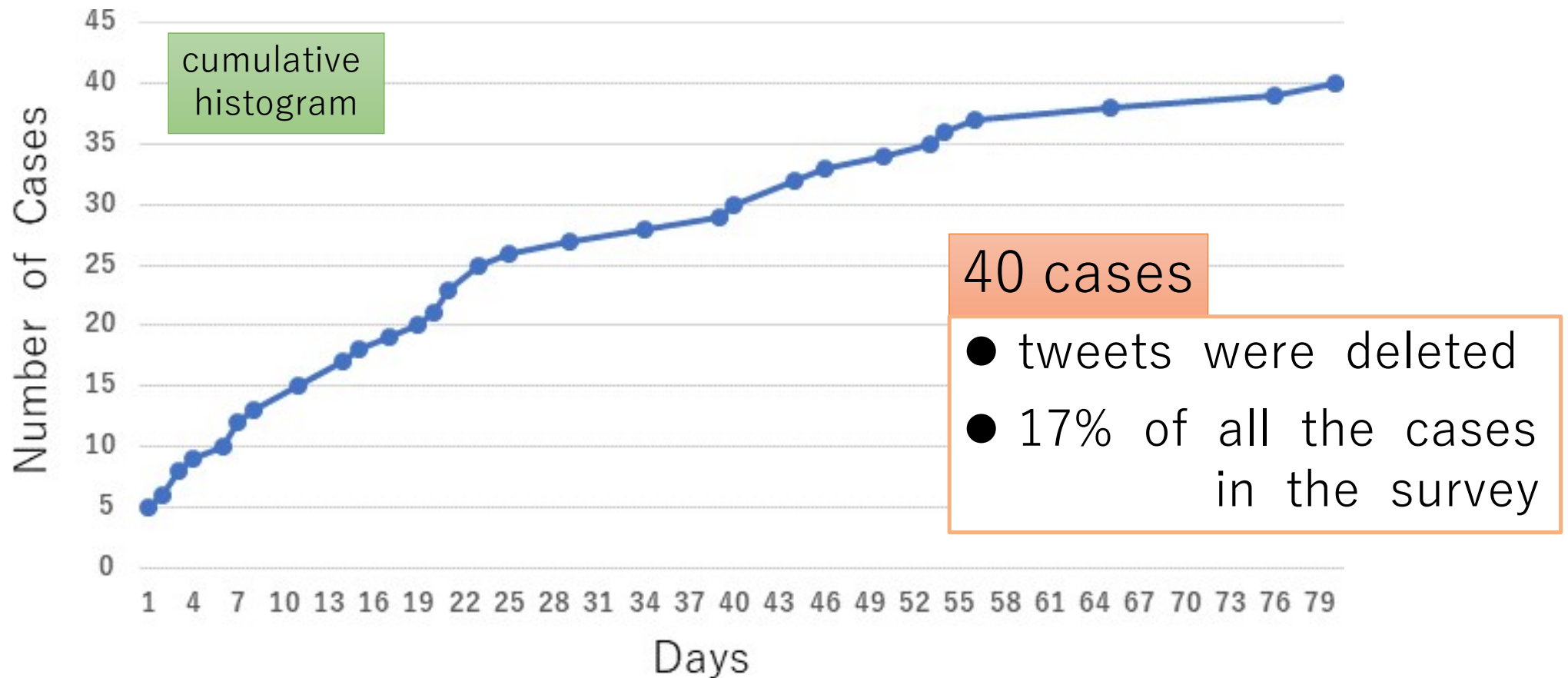


Our survey

- 233 Japanese tweets promising to disclose submitters' personal information.
- from October 3, 2020 to January 7, 2021.
- tweets were surveyed once a day at midnight.
- the surveyed cases were collected by twport (<https://twport.com>).

period ①

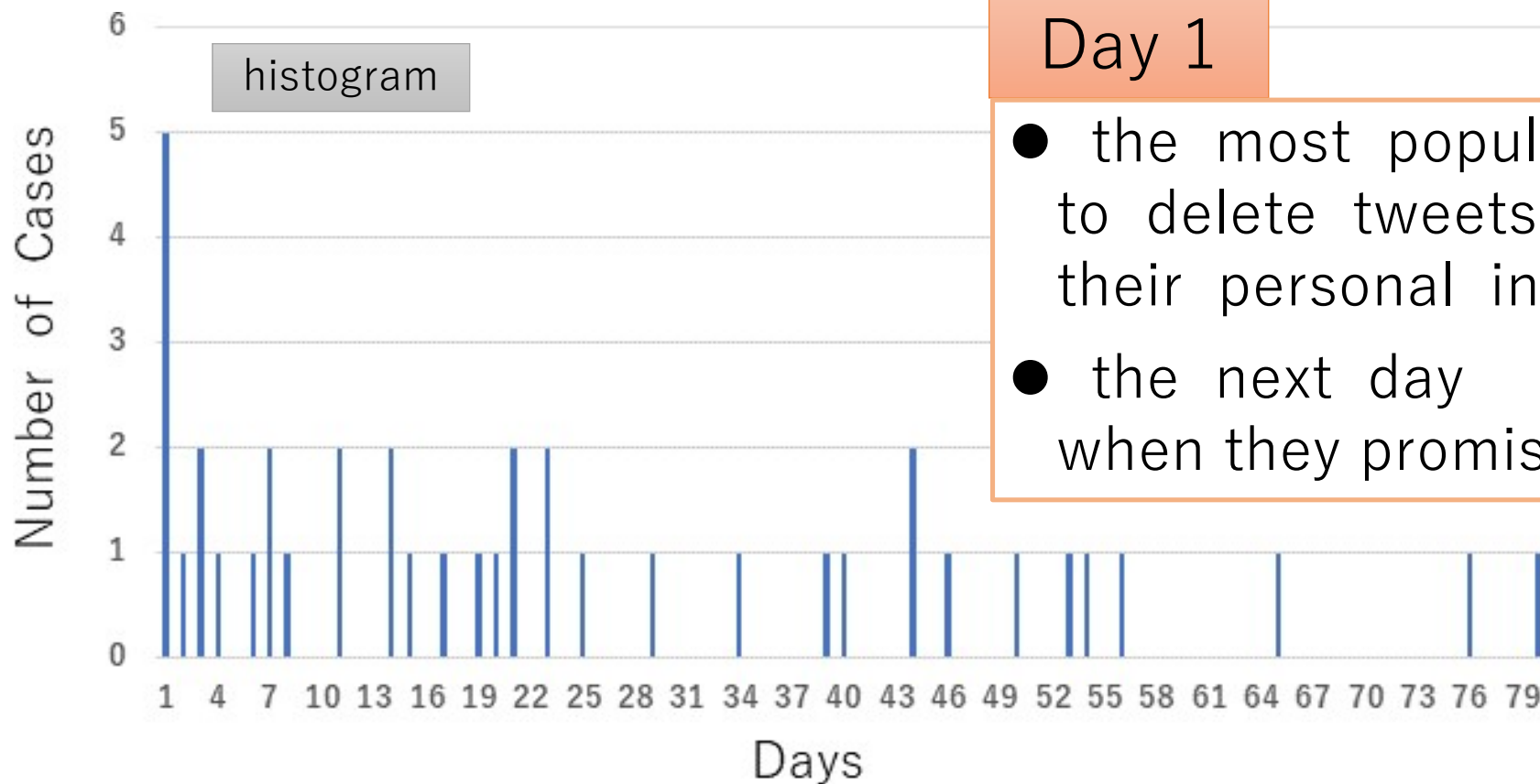
from promising
to deleting tweets



period

①

from promising
to deleting tweets

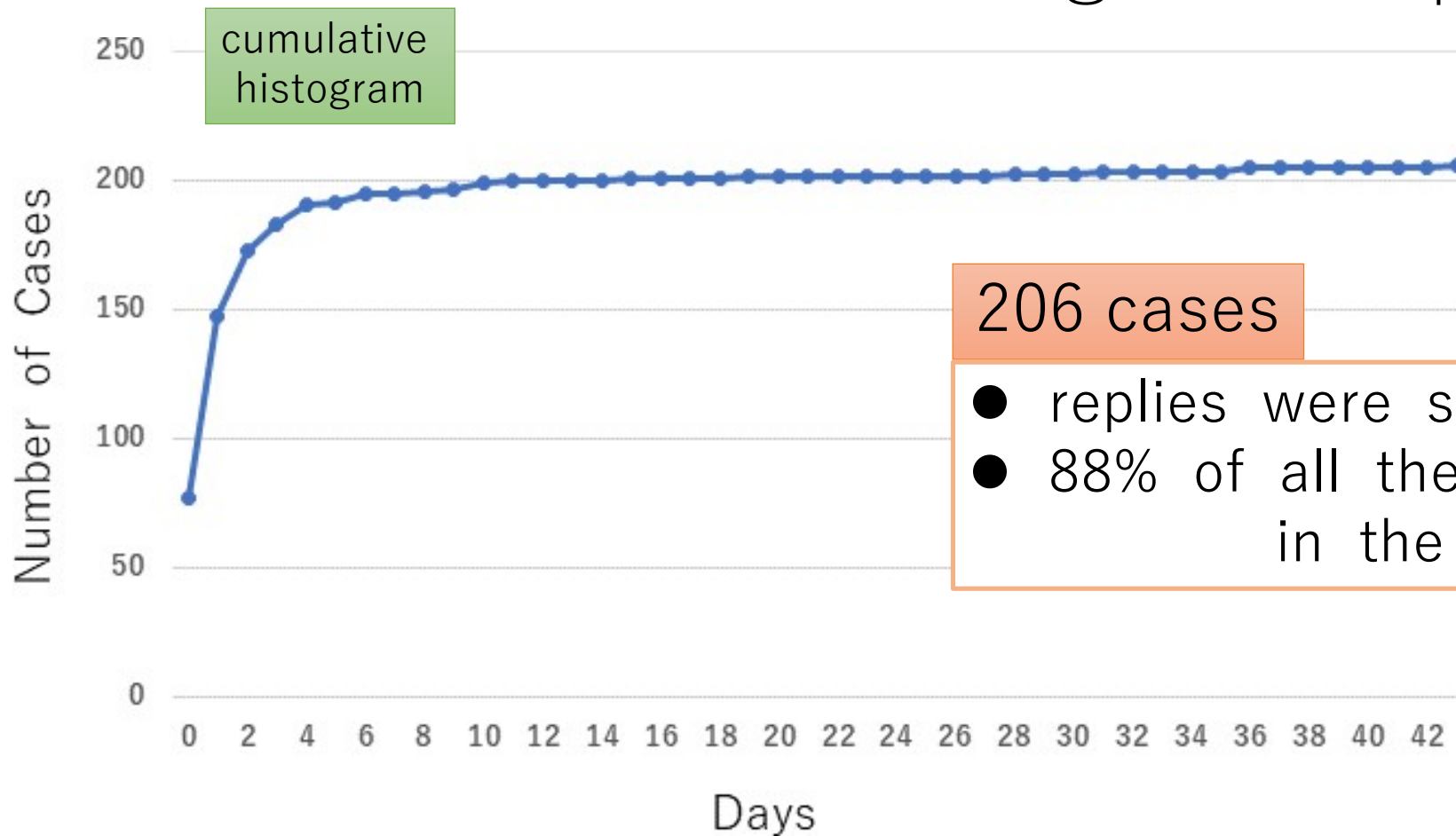


Day 1

- the most popular day to delete tweets disclosing their personal information
- the next day when they promised

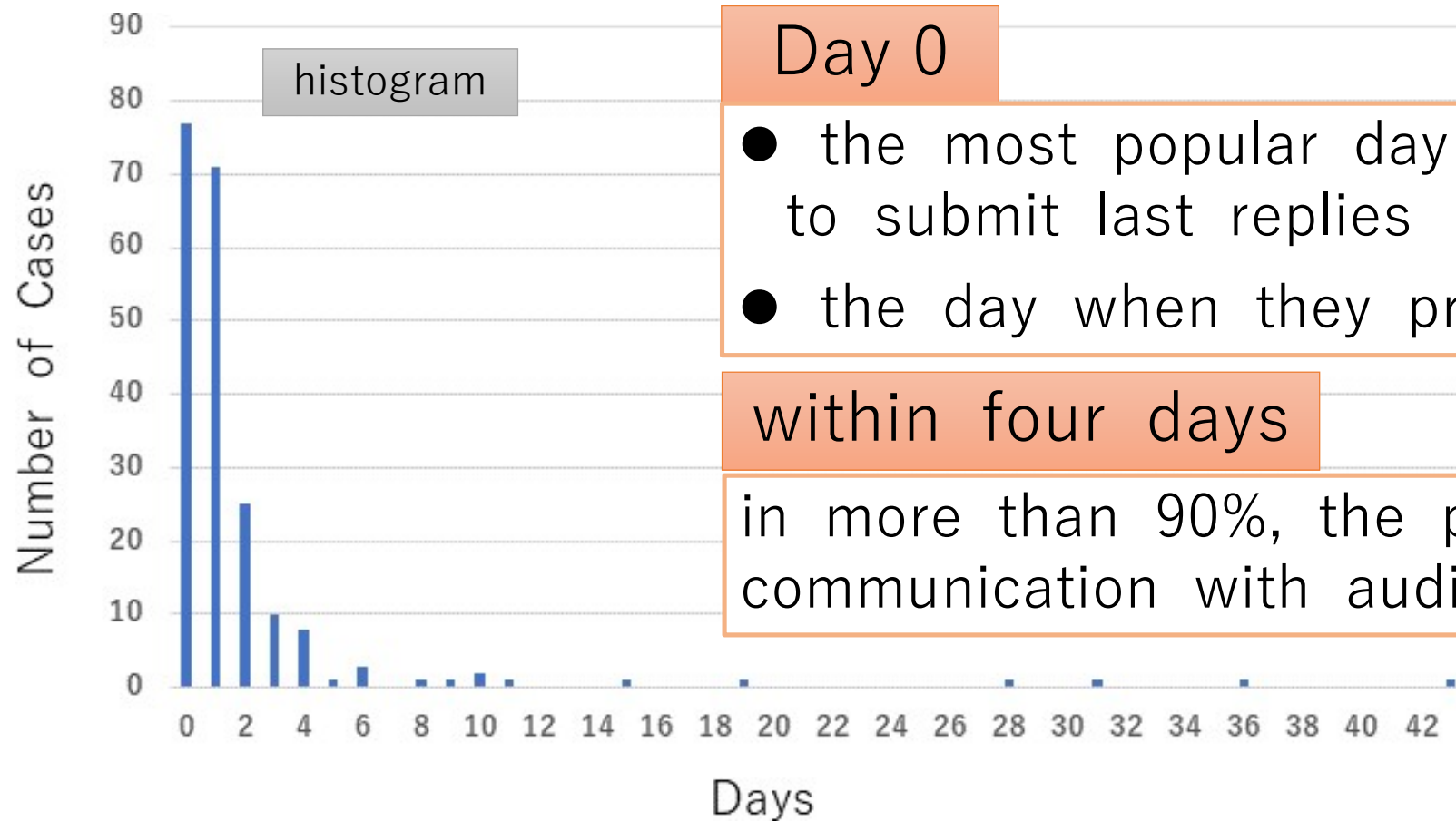
period ②

from promising
to submitting last replies



period ②

from promising
to submitting last replies



Day 0

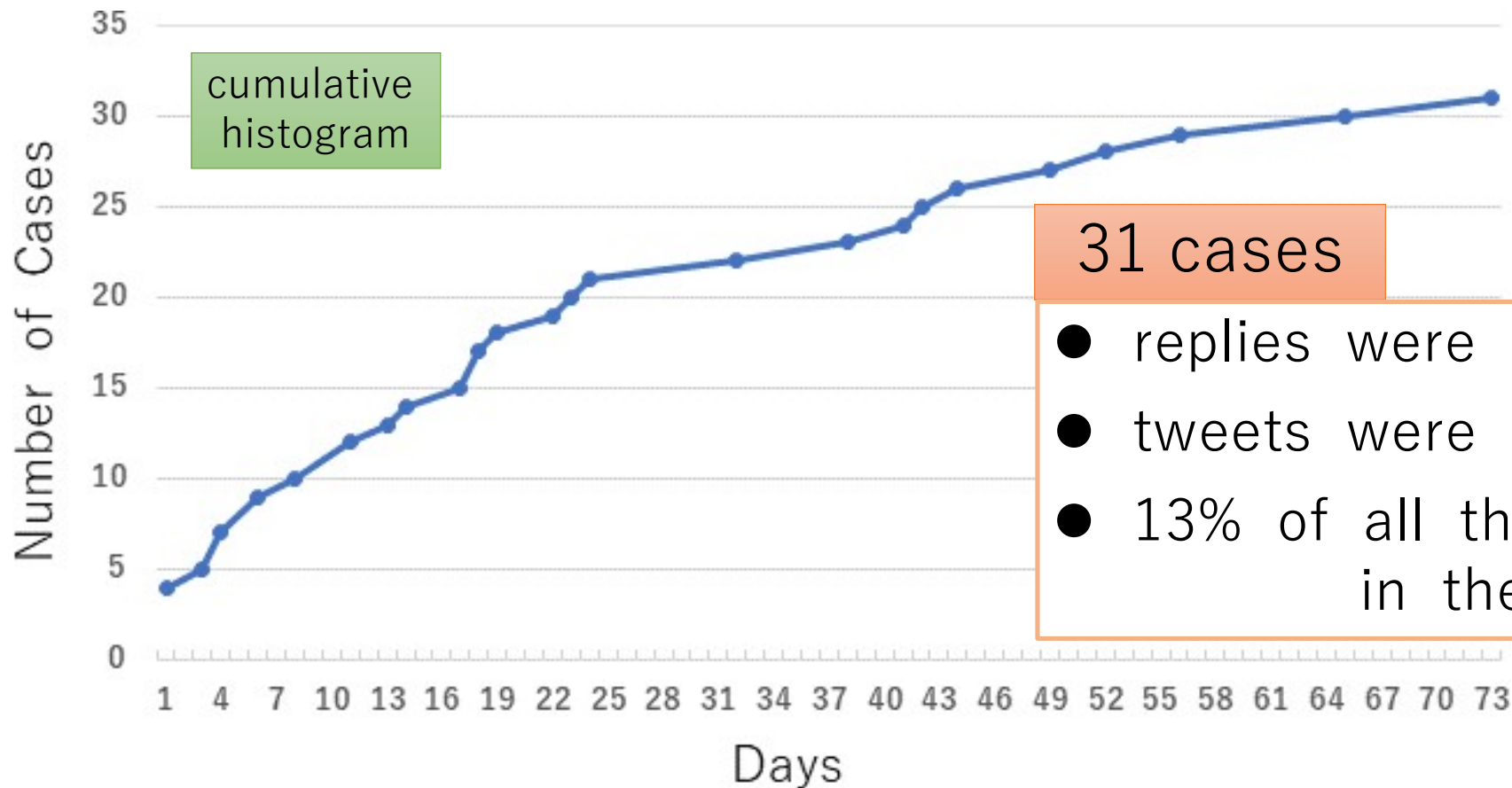
- the most popular day to submit last replies
- the day when they promised

within four days

in more than 90%, the period of communication with audiences were

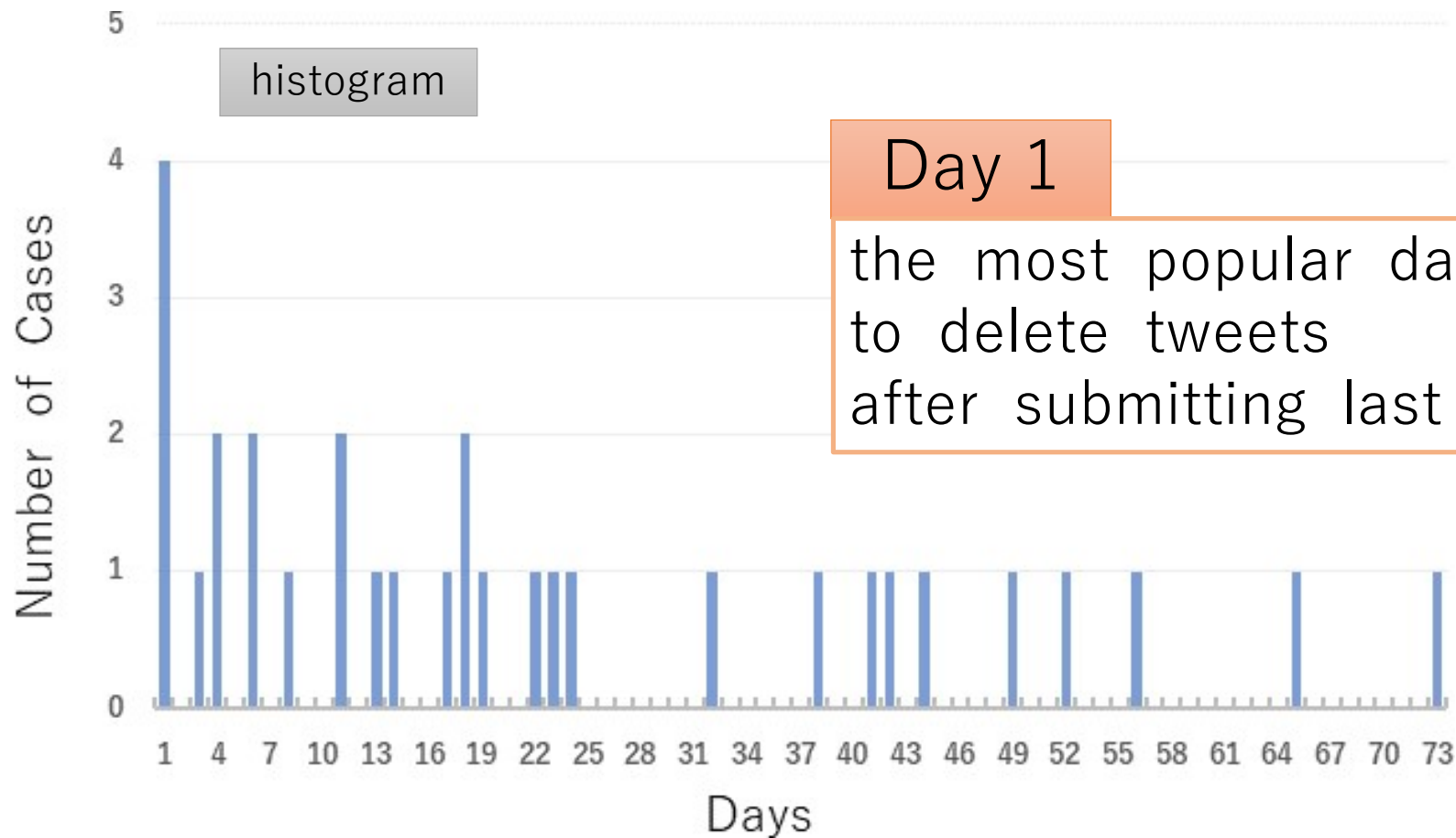
period ③

from submitting last replies
to deleting tweets



period ③

from submitting last replies
to deleting tweets



conclusion

- 18% of all the cases were deleted in our three-month survey.
- the most popular day to delete tweets disclosing submitters' personal information was the next day when they promised to do so.
- In more than 90% of the surveyed cases, they interacted with audiences within four days.

future works

We intend to

- survey tweets many times in a day
because we do not want to miss tweets
submitted on the day when submitters deleted them.
- investigate tweets
in languages other than Japanese.