

Ephemeral Messaging

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Ephemeral messaging is the mobile-to-mobile transmission of multimedia messages that disappear after a short period of time.

Messages are public

Messages can be captured before they disappear



Examples of Ephemeral Messages

<https://freephonenum.com/us/receive-sms/2066417772>

1 day ago

916-
919-****

Who is this

1 day ago

346-
803-****

Use 762956 as your login code for Tinder. (Account Kit by Facebook)

1 day ago

479-
789-****

Ada, I just found something that can help you quite well. Call me back to get the details
KN7LzNW043V65y0FHRFpd81Zb

1 day ago

617-
233-****

What?

1 day ago

903-
952-****

Plz do not text this phone

Observation: Many Verification Codes

| | | |
|--------------|--------------|--|
| 20 hours ago | 346-803-**** | Use 561250 as your login code for Roz Dhan. (Account Kit by Facebook) |
| 20 hours ago | 346-803-**** | Telegram code 91306 |
| 21 hours ago | 781-888-**** | STOP |
| 21 hours ago | 346-803-**** | <#> Telegram code: 44032 You can also tap on this link to log in: https://t.me/login/44032 oLeq9AcOZkT |
| 21 hours ago | 310-808-**** | Lol who is this |
| 21 hours ago | 336-967-**** | Welcome to LyveBee, the verification code to register is 603756, the code is valid for 10 minutes. Thanks |
| 22 hours ago | 628-600-**** | Your verification code for AmateurMatch is: 9023 |
| 22 hours ago | 346-803-**** | Use 096291 as your login code for Monkey. (Account Kit by Facebook) |

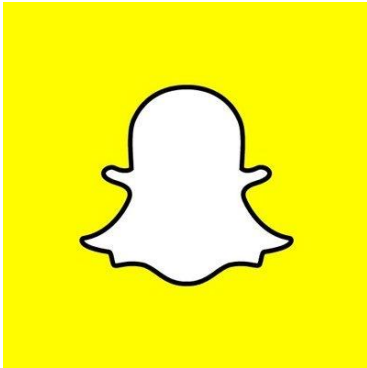
Observations -> Questions

1. What are the implications on privacy for ephemeral messaging when being used for account creation?



Observations -> Questions

2. What is the primary use case for people on these throwaway phone numbers?



Step 1: Scraping data

For each message, we need to collect the message, the time, and the phone number that sent the message.

We want to scrape data from each site that provides ephemeral messaging services.

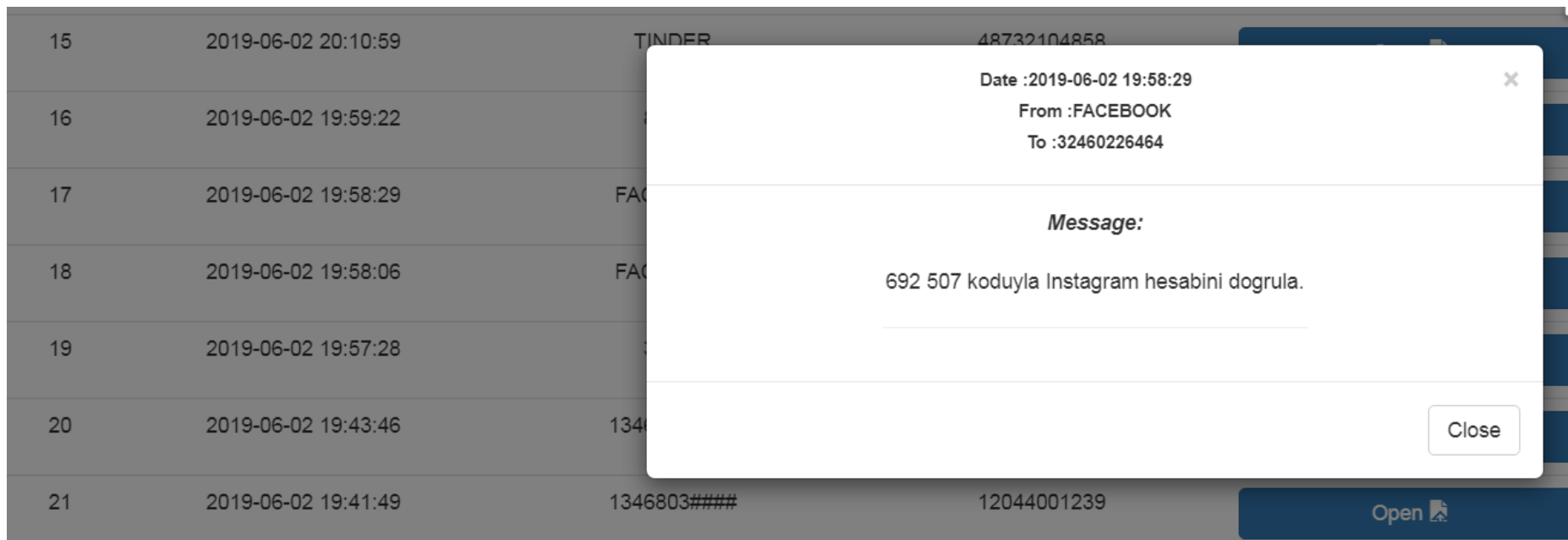
Scrape Data from Here

```
<tr>
<td>21 hours ago</td>
<td><a href="https://freephonenum.com/receive-sms-from/1616799">346-803-****</a>
</td>
<td>&lt;#&gt; Telegram code: 44032
You can also tap on this link to log in:
https://t.me/login/44032
oLeq9Ac0ZkT</td>
</tr>
<tr>
<td>21 hours ago</td>
<td><a href="https://freephonenum.com/receive-sms-from/1616794">310-808-****</a>
</td>
<td>Lol who is this</td>
</tr>
<tr>
<td>21 hours ago</td>
<td><a href="https://freephonenum.com/receive-sms-from/1616769">336-967-****</a>
</td>
<td>Welcome to LyveBee, the verification code to register is 603756, the code is valid for 10 minutes. Thanks</td>
</tr>
<tr>
<td>22 hours ago</td>
<td><a href="https://freephonenum.com/receive-sms-from/1616690">628-600-****</a>
</td>
```


Challenges with Scraping Data

Many sites do not lay out the data in a straightforward way

Some sites have an AI program to block scraping



The image shows a screenshot of a data table with a modal dialog box overlaid. The table contains the following data:

| ID | Timestamp | Source | Destination |
|----|---------------------|-------------|-------------|
| 15 | 2019-06-02 20:10:59 | TINDER | 48732104858 |
| 16 | 2019-06-02 19:59:22 | | |
| 17 | 2019-06-02 19:58:29 | FACEBOOK | |
| 18 | 2019-06-02 19:58:06 | FACEBOOK | |
| 19 | 2019-06-02 19:57:28 | | |
| 20 | 2019-06-02 19:43:46 | 134 | |
| 21 | 2019-06-02 19:41:49 | 1346803#### | 12044001239 |

The modal dialog box is titled "Date :2019-06-02 19:58:29" and contains the following information:

- From :FACEBOOK
- To :32460226464
- Message: 692 507 kodyyla Instagram hesabini dogrula.

The dialog box has a "Close" button and a close icon (X) in the top right corner. The background of the table is dimmed, and there is an "Open" button with a file icon at the bottom right of the table area.

Step 2: Literature Review

Amass a collection of related work on the topic to contextualize the work

Look for analysis techniques

Find questions to ask about our data

Draw contrasts with what others are doing

Step 3: Data Analysis

Categorize the messages by creating labels

Automate the labeling process

Analyze data using statistical methods

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DIMACS program