FAQ regarding the MW Research YY monitoring Chrome browser extension

Q 1: How can I see the gifts flowing by using Google Chrome?
You can obtain our Chrome browser extension via the link below. The instructions on how to install it are in the zip file.

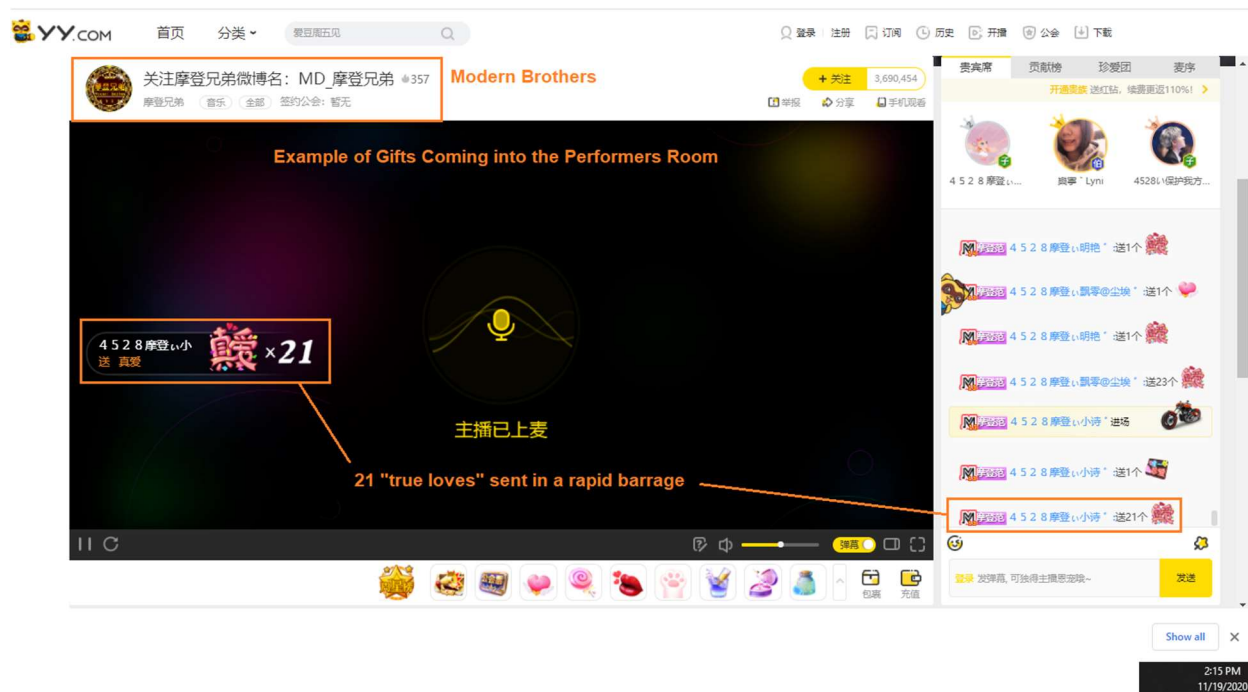https://twitter.com/muddywatersre/status/1329226171737751552

YY will likely take steps to change its code, so we urge you to do so soon.

After downloading and installing the Chrome browser extension, you need to pick a YY performer's room to monitor. Here are some of the people we mentioned in our report and their room addresses. These tend to have gifts flowing into them throughout the day.

Liu Yishou: https://www.yy.com/613
Modern Brothers: https://www.yy.com/28130138

If you do not see anything, you may need to refresh the screen. Once you start to see messages you should soon also be to able to see gifting activity when it occurs.   Depending on the room being monitored and the volume of traffic, you may need to have patience. We collected our data over several months.

After you have accumulated data, download the file using the "export to csv" function in the browser.

After downloading, you convert the script into readable Chinese characters by follow the steps below.

Depending upon your OS and the version of your software, not all steps may be necessary. The like below comes from an article on salesforce, [1] other help guides are also available online.

1. Open a new, blank Excel workbook.
2. In the Data tab, click **From Text**.
3. Select the .csv file and click **Import**
4. In the Text Import Wizard pop-up window, under Original Data Type, select **Delimited**.
5. In the Text Import Wizard pop-up window, under File origin, select **UTF-8**. It may be called 65001: Unicode (UTF-8).
6. In the Text Import Wizard pop-up window, click **Next**
7. In the Text Import Wizard pop-up window, check the box next to Comma, and then click **Next**.
8. In the Text Import Wizard pop-up window, click **Finish**.
9. In the Import Data pop-up window, click **OK**.

After that, space out the columns and the spreadsheet should look like this.

Example: This is for Modern Brothers' room and was collected today 11/19/2020 at 2:33 PM ET.

If more than one room is open at a time, you will have more than one room's gifts collected in that dataset. These can be differentiated by the ToID or ToName.

Q 2. Do I need to create a fake login to access this data?
No. Just install the browser extension per the instructions and go to a performer's room. If you do not find a room with gifts flowing into it, try another room, or one of those we provided above.
However, if you want to send a gift and trace your own transaction, you will need to create an account.

Q 3: Am I seeing a bunch of repeating or duplicate transactions?

Duplicates may occur, we deduplicate our data before analyzing it.

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[1] https://help.salesforce.com/articleView?id=000334793&type=1&mode=1

To identify whether it is a unique or duplicate transaction, check each data field in the csv. If all the data fields and the time stamp are same, we deem this a duplicate, and remove it.

Q 4. Why am I not seeing any IMEIs in the data?

Transactions sent from a PC (normal PC, not a bot or Group Controlled PC) will not have an IMEI or Mac Address value.

Some Chinese bot software allows the operator to control or emulate mobile devices, and these can send along a "ghosted" IMEI. If the bot-programmer isn't too wise, they'll leave the same IMEI value in place for a number of their user accounts.

With a reasonably sized data set IMEIs should appear, but they will not be in every transaction.

Q 5. Why do some IMEIs look weird, or are set to the same value as a MAC address? They are different things!

In the YY ecosystem, Android phones transmit their on-device IMEI value AND their MAC address, which you can see.

On iPhones, you will see what appears to be a "hash value"[2] that is set the same for both the IMEI and MAC Address field. This is not a normally-formatted IMEI; however, our testing showed that it uniquely tracks a device. For the purposes of our research and how we connect accounts, this works identically to a normally-formatted IMEI.

Q 6. I don't see any bots. I think you are full of shit.

The bots will not wave their arms or wear a sign that say "bot". That is why we call them fake users. To verify that they are fake, a very large data set was needed where patterns of fraud and control could be detected. Please see the content of our full report and the appendixes for more details on these criteria. We monitored yy's gift giving data for months and across a very large number of broadcasters in order to spot the patterns. Don't expect to see immediate results after 5 minutes, it can take some time to accumulate data and to see patterns. It is best to leave the Chrome extension running on a busy broadcast, it will accumulate transactions while you wait.

Q 7. Is this hacking?

No. We are looking at data that is already flowing through your browser. There's no magic to it and the source code for the Chrome extension is included so your technical team can review it.

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https://docs.microsoft.com/en-us/dotnet/standard/security/ensuring-data-integrity-with-hash-codes#:~:text=A%20hash%20value%20is%20a,than%20signing%20the%20larger%20value.