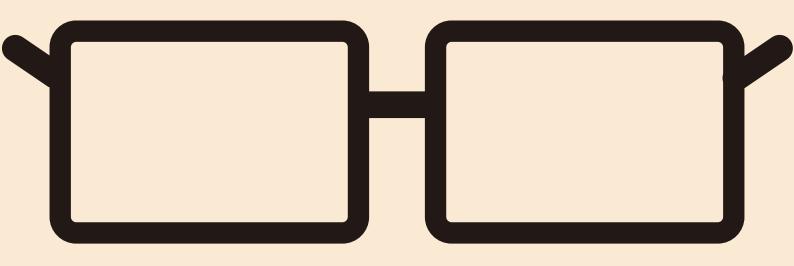
DEVELOPER GUIDE

Home Energy Feedback Data Analysis 2016-2017



HOW ARE PEOPLE USING OUR FEEDBACK?

— IDEAL

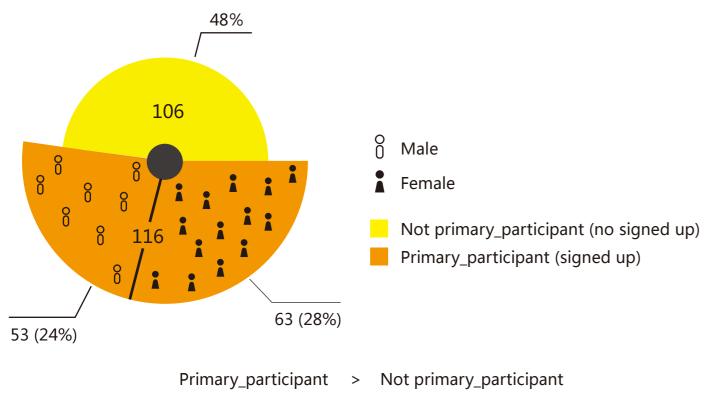
Contents

Who are main participants?

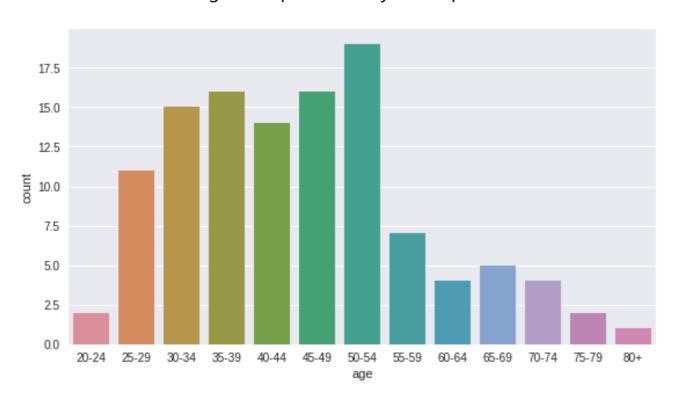
Detail of logins

New features released & Login time

Participants Distribution



Female primary participants > Male primary participants



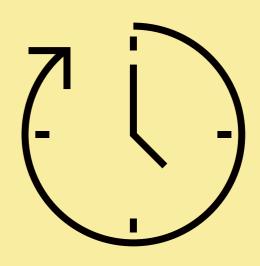
Age Group of Primary Participants

In primary_participant, the largest age group is 50-54 and there are no people in the age group 15-19.

Who are main participants?

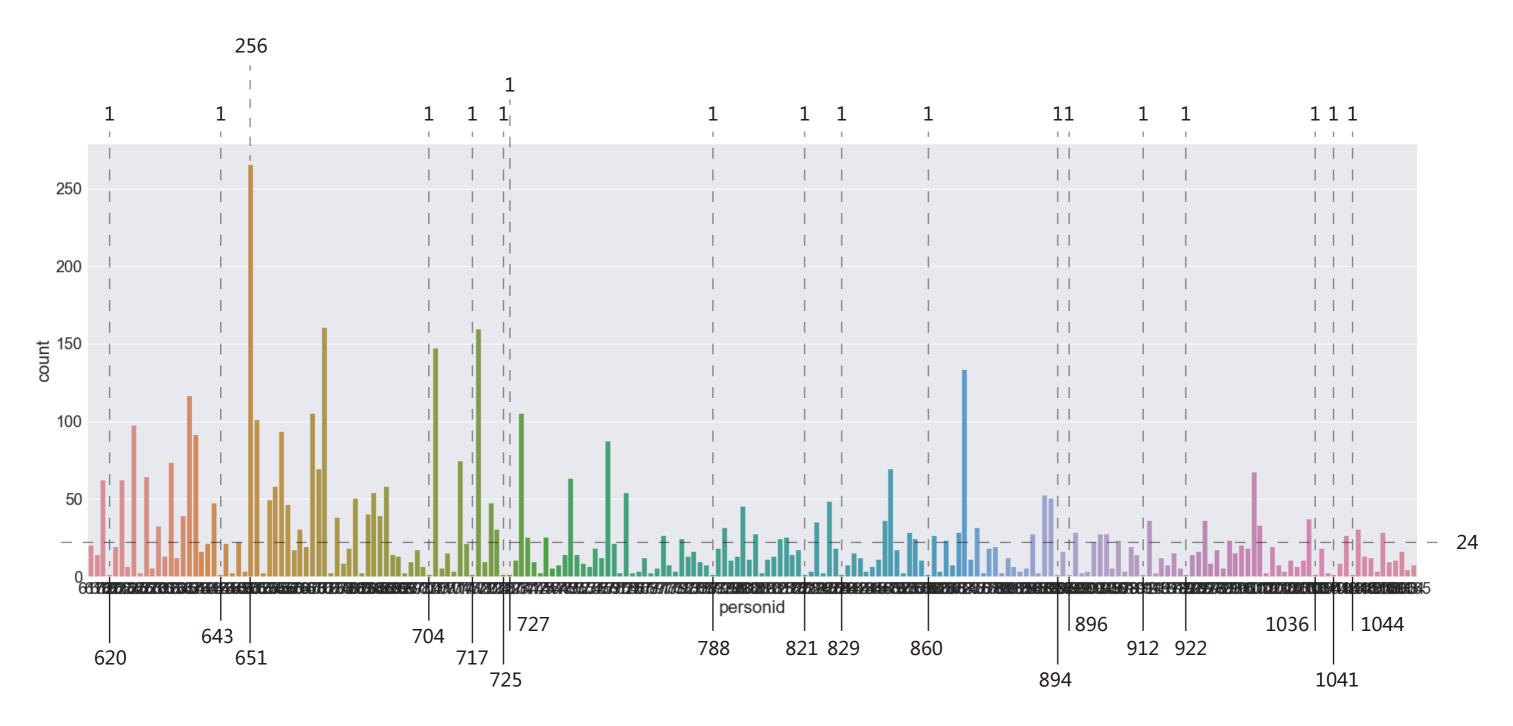


DETAIL OF LOGINS



The plot shows how many times each participant logged into system.

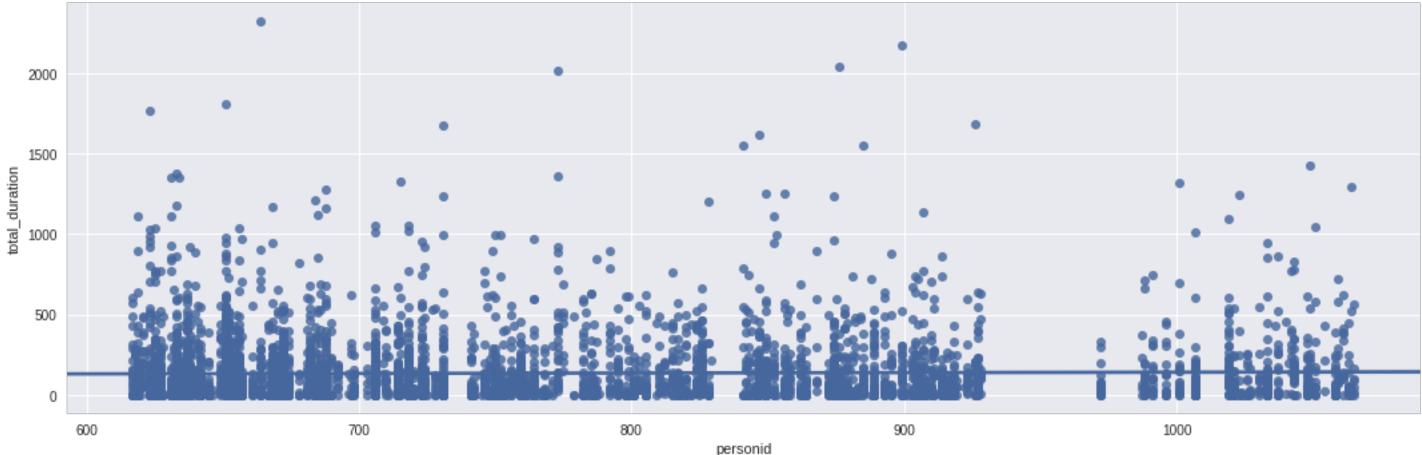
The highest number is 265, the average is around 24, and the smallest number is 1. The average number is around 24.

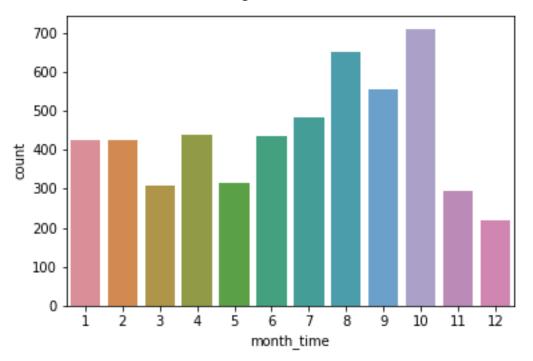


The plot shows the relationship between log in duration (second) and person id.

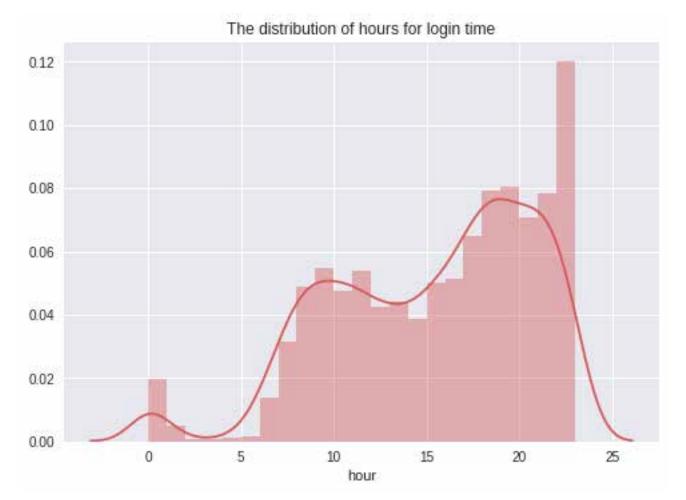
Most participant log in duration are below 500 second (8 minute 20 second), and there are only very few people logged in over 2000 second (33 minute 20 seconds).

Most participants' login durations are less than 500s (00:08:20).





Participants tend to login to system in autumn, top 3 months of login are October, August, and September respectively.



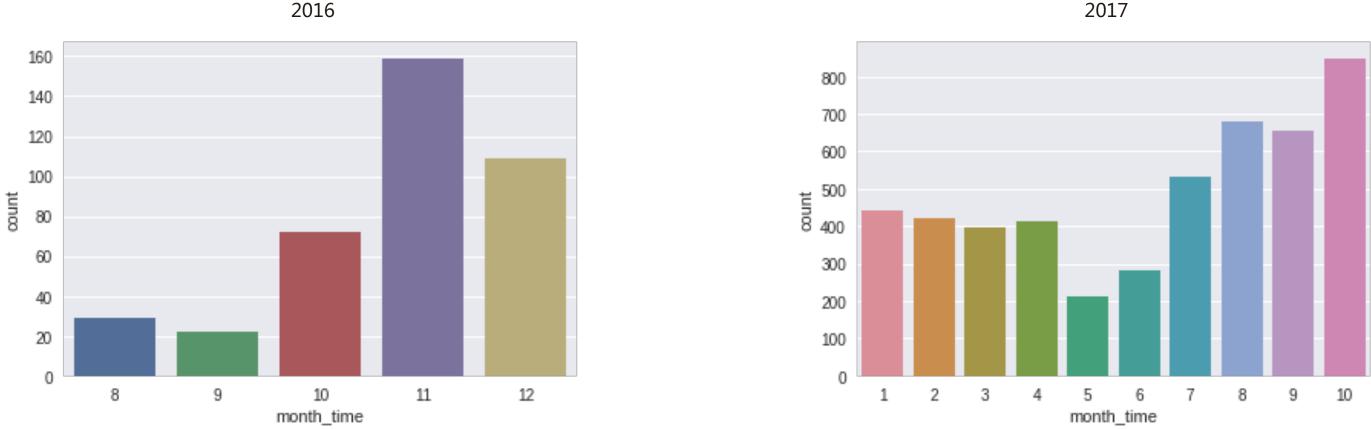
The system is most frequently used between around 17 : 00 - 24 : 00, especially around 23:00.

Participants tend to login to system in autumn.

Participants tend to login to system at night

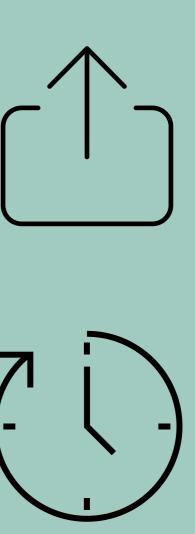
The Logins in Each Month

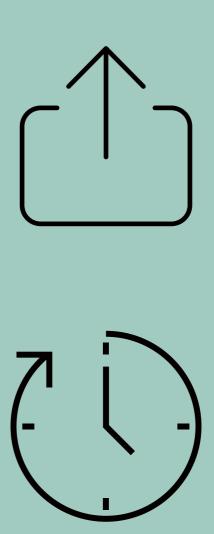
Count of Logins in Each Month in 2016 and 2017



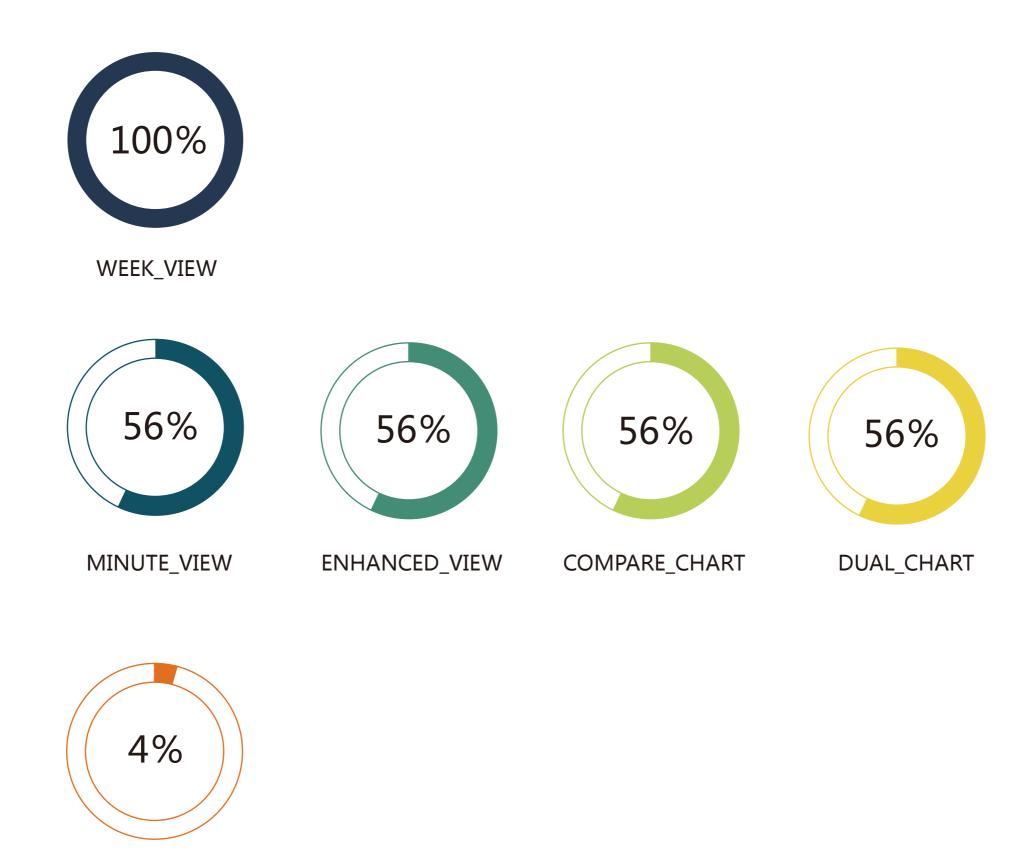
The frequency of people's logins did not drop off overtime as their logins reached the maximum in October 2017

NEW FEATURES RELEASED AND LOGIN TIME





Propotion of users received each feature



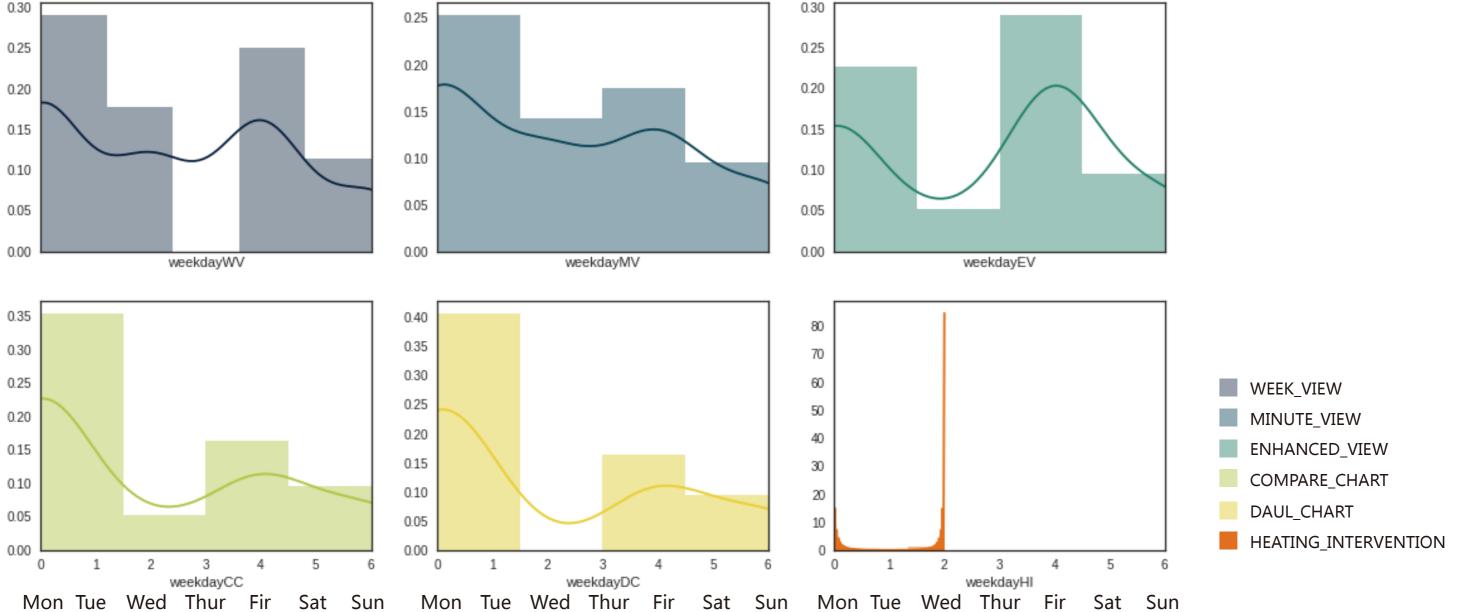
HEATING_INTERVENTION

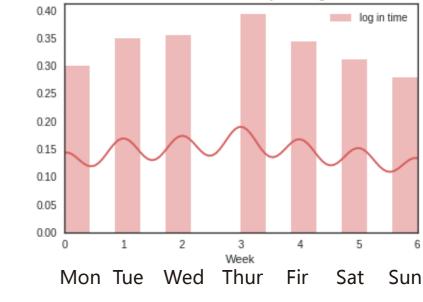
The plots show every features except HEATING INTERVENTION has two peak time of releasing on Monday and Friday.

WEEK_VIEW, MINUTE_VIEW, COMPARE_CHART and DAUL_CHART were released the most on Monday while ENHANCED_VIEW released the most on Friday. HEATING_INTERVENTION was released the most on Wednesday.

Comparing to the plot of log in time, we found that the log in times of weekday are not related to the new feature released time because the distributions of each weekday for log in time are quite similar.

Suggestion: The release weekdays did not need to be adjusted as they were not related to login date.





The distribution of Weekdays for Login time



The distribution of MONTHs for new features released and Login time 0.7 WEEK_VIEW MINUTE VIEW ENHANCED VIEW COMPARE_CHART 0.6 DUAL CHART HEATING_INTERVENTION log in time 0.5 0.4 0.3 0.2 0.1 0.0 10 2 4 6 8 12 0 Month

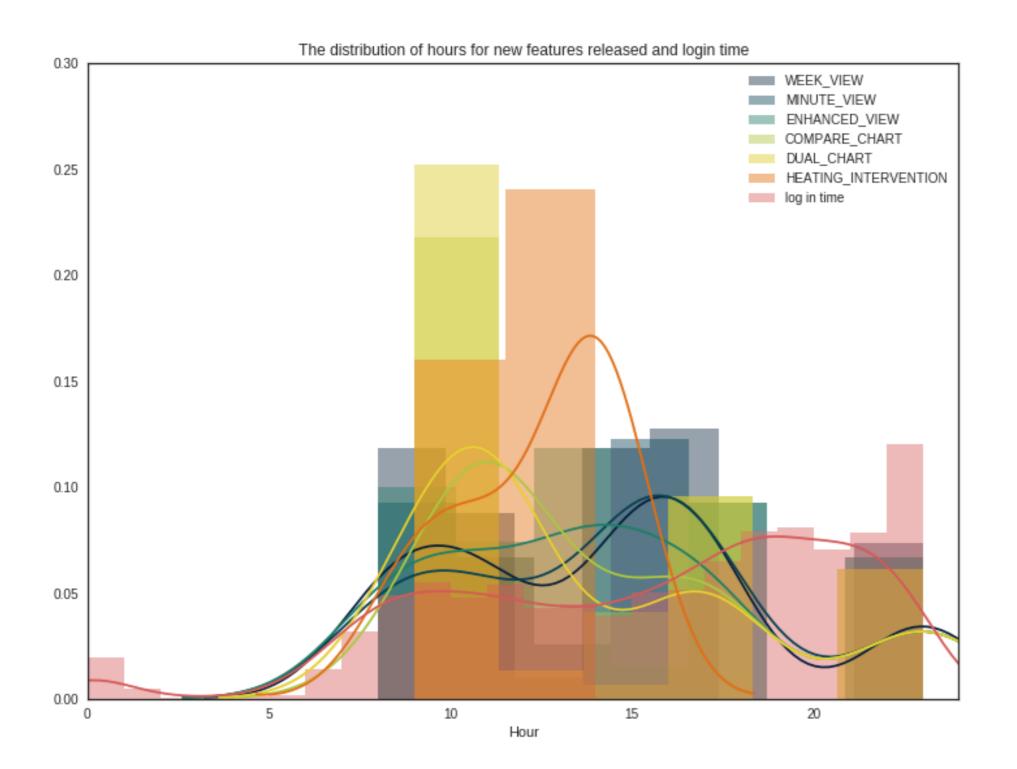
The plot demonstrates that most features has two peaks of release time in a year except HEATING_INTERVENTION.

WEEK_VIEW and MINUTE_VIEW have very similar trend which peaked on March and August. Although ENHANCED_VIEW and COMPARE_CHART also reached their second peak in August, the first peak of ENHANCED_VIEW is in April and the that of COMPARE_CHART is in May. HEATING_INTERVENTION is a very special one, it is only released in March.

All features are released between February and October. There is no function released on January, November and December.

There are also two peaks of participants logging in time, one is in January which before the first peak of most new features released time; another one is in October which after the second peak of most new features released time.

Suggestion: The relationship between participants' login month and new features released month showed that the concentrated released months of COMPARE_CHART and DUAL_CHART could be changed to March and April.



The plot demonstrates that all features were released between 8:00 to 23:00.

Every function except HEATING INTERVENTION has three release peak time a day. The first peak is around 9:00 - 11:00, the second is between 15:00 - 17:00, the third is between 21:00 - 23:00.

The HEATING INTERVENTION is still very special. It was released most between 13:00 - 15:00.

For the login time, participants often login to system between around 9:00 - 11:00, which is same with the first peak of new features released, and between abount 17 : 00 - 24 : 00, especially around 23:00.

Suggestion: The released hour of the new features in a day might need to be adjust to later ones to be closer to the peak of users' login hours.

Brochure Design

Yi Shen

Data Analysis

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