Home (navigation)

Overview (title)

People are interested in predicting the future. For example, which films will bomb or who will win the upcoming Grammy Awards? Making predictions for future via increasing ubiquity of social multimedia (photos, video or news) is not only an open challenge of multimedia area but also valuable to various applications and scenarios, such as multimedia recommendation, advertising system, fashion analysis etc. Predictive analytics is thus a field that has attracted major attention in both of academia and industry, and it covers several significant areas of multimedia and artificial intelligence.

The purpose of **SMP** **(Social Media Prediction Challenge)** Challenge is to discover novel challenge task based on numerous resources of social media and seek excellent research teams for prediction. As a joint activity with the research teams from multiple organizations, we are holding on a novel challenge for sociological understanding and predictions. Meanwhile, we construct a large SMP dataset for social media research, which has social media posts with relative temporal and multiple multimedia information (e.g. user information, photos, timestamps etc.).

Challenge (navigation and title)

The challenge will focus on temporal prediction of social media, and the topic is **Temporal Popularity Prediction**. Meanwhile, we are open for innovative self-proposed topics, which related with new predictive problem in social media.

## Task: Temporal Popularity Prediction

The task is focused on predicting the impact of new social media posts (photos, videos or news) before they were shared on social media. Given a new post with temporal multimedia context of a publisher, the popularity computed by the normalized score of clicks or visits of the post (e.g., tweet count for Twitter, view count for Flickr, etc).

The contestants are asked to develop their temporal prediction models based on the SMP dataset provided by the Challenge (as training data), plus possibly additional public/private data, to address one or both of the given tasks. For the evaluation purpose, a contesting system is asked to produce prediction results of popularity. The accuracy will be evaluated by pre-defined quantitative evaluation. The contestants need to introduce their systems and datasets in the conference.

* **Evaluation Criteria & Ranking**

The evaluation provided here can be used to obtain performances on the testing set of SMP. It contains multiple common metrics, including *Spearman’s Rho (SR)*, *Mean Absolute Error (MAE)*, *Mean Squared Error (MSE)*.

The ranking for the competition for each year is based on quantitative evaluation, respectively. Specifically, a rank list of teams is produced by sorting their scores on each objective evaluation metric, respectively. The final rank of a team is measured by combining its ranking positions in the three ranking list for respective task and defined as:

*R*(team) = *R*(team)@SR + *R*(team)@MAE + *R*(team)@MSE

where *R*(team) is the rank position of the team on a particular metric, e.g., if the team achieves the best performance in terms of *Spearman’s Rho*, then *R*(team)@SR is "1". The smaller the final ranking, the better the performance.

Timelines （navigation）

Important dates (title)

* March 20, 2019: Dataset available for download (training set)
* May 25, 2019: Test set available for download
* June 5, 2019: Results submission
* June 6, 2019: Objective evaluation and human evaluation
* June 15, 2019: Evaluation results announce
* July 8, 2019: Paper submission deadline (please follow the instructions on the main conference website)

Dataset: (navigation and title)

**Temporal Popularity Image Collection (TPIC)**

<https://github.com/social-media-prediction/TPIC2017>

The SMP datasets TPIC2017 contains 680K photos, which collected from Flickr (a photo sharing platform) and corresponding anonymized photo-sharing records ranges of 3 years. TPIC is a multi-faceted data collection, which contains photo image, user profile and photo metadata. For each task, we split the data with time-order, resulting in 90% for training and 10% for testing. The tables below show the statistics of TPIC2017.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Dataset** | **#Post** | **#User** | **Temporal Range**  **(Years)** | **Avg. Title Length** | **Avg. Tag Count** | **Avg. Description Length** | **Avg. Views** |
| TPIC2017 | 680K | 80K | 3 | 20 | 9 | 114 | 131 |

Organizers (navigation)

**Organizers (title 1):**

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Webmaster (title 2) (跟上面的合一个navigation)

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