For each method, all the hyper-parameter tuning is done using the validation data. The hyper-parameters values for the baselines and proposed methods are as follows.

Traditional machine learning hyper-parameters:
- For SVM, soft margin (C) is set to 1.0 and class imbalance correction is applied.
- For Random Forest, the number of estimators is 100.
- For logistic regression, class imbalance correction is applied.
- The maximum number of features used are 10000, and character word-ngram range is (1,3).

Fixed parameters across all Proposed methods:
- The learning rate was set to 2e-5.
- Batchsize set to 6.
- We employ 0.2 dropouts before and after the final fully connected layers.

Tuned hyper-parameter values for Sexism detection DL baselines

Approach	LSTM dim.	Attention dim.	CNN Filters
CNN-Kim	0	0	100
biLSTM	100	N.A.	N.A.
biLSTM-Attention	100	300	N.A.
C-biLSTM	100	300	150
BERT	100	300	N.A.
RoBERTa	200	400	N.A.

Tuned hyper-parameter values for Sexism detection proposed methods

biL-att applied on	Knowledge info.	LSTM dim.	Attention dim.
RoBERTa_t		400	800
RoBERTa_t	Hashtag	500	1000
RoBERTa_t	Emoji, Hashtag	500	1000
RoBERTa_t, Em	Emoji	500	1000
RoBERTa_t, Em	Hashtag	300	600
RoBERTa_t, Hu	Emoji	300	600
RoBERTa_t, Pe		200	400
RoBERTa_t, Pe, Hu		400	800
RoBERTa_t, Pe, Hu	Emoji, Hashtag	300	600

RoBERTa_t, Em, Pe		500	1000
RoBERTa_t, Em ,Pe	Emoji, Hashtag	500	1000
RoBERTa_t, Pe, Em, Hu		200	400
RoBERTa_t, Pe, Em, Hu	Emoji	300	600
RoBERTa_t, Hu, Em	Hashtag	100	200
RoBERTa_t, Hu, Em		300	600

Tuned hyper-parameter values for Sexism classification DL baselines and proposed methods

Approach	LSTM dim.	Attention dim.	CNN Filters
CNN-Kim	0	0	200
biLSTM	200	N.A.	N.A.
biLSTM-Attention	200	300	N.A.
C-biLSTM	100	300	100.
BERT	100	300	N.A.
RoBERTa	300	500	N.A.

Tuned hyper-parameter values for Sexism classification proposed methods

biL-att applied on	Knowledge info.	LSTM dim.	Attention dim.
RoBERTa_t		300	600
RoBERTa_t	Emoji	400	800
RoBERTa_t	Hashtag	200	400
RoBERTa_t	Emoji, hashtag	300	600
RoBERTa_t, Em	Emoji	500	1000
RoBERTa_t, Em	Emoji, Hashtag	400	800
RoBERTa_t, Pe	Hashtag	300	600
RoBERTa_t, Hu	Emoji	400	800
RoBERTa_t, Em, Pe	Hashtag	400	800
RoBERTa_t, Em, Pe	Emoji, Hashtag	500	1000

RoBERTa_t, Hu, Em	Emoji, Hashtag	400	800
RoBERTa_t,Pe, Em, Hu	Hashtag	200	400
RoBERTa_t, Pe, Em, Hu	Emoji, Hashtag	300	600
RoBERTa_t, Pe, Hu		500	1000
RoBERTa_t, Pe, Hu	Emoji	400	800
RoBERTa_t, Pe, Hu	Hashtag	500	1000