Experiments
Real-world scenarios

- Split dataset temporally.

- Such a scenario can somehow expose the drawback of existing techniques and it requires a model of higher generalizability to cope with novel instances.

- Under this hard setting, Dual Emotion Features still outperform others, reveals the effectiveness and generalization ability to some extent.

Models	Macro F1	Acc.	F1 score	
			Fake	Real
BiGRU	0.839	0.839	0.839	0.839
+ Emoratio	0.850	0.850	0.854	0.846
+ EmoCred	0.829	0.829	0.836	0.821
+ **Dual Emotion Features**	**0.855**	**0.855**	**0.857**	**0.852**
BERT	0.900	0.900	0.900	0.900
+ Emoratio	0.901	0.901	0.900	0.902
+ EmoCred	0.902	0.902	0.901	0.903
+ **Dual Emotion Features**	**0.915**	**0.915**	**0.913**	**0.918**
HSA-BLSTM	0.913	0.913	0.912	0.914
+ Emoratio	0.920	0.920	0.920	0.920
+ EmoCred	0.903	0.903	0.902	0.905
+ **Dual Emotion Features**	**0.932**	**0.932**	**0.932**	**0.933**

Models	Macro F1	Acc.	F1 score	
			Fake	Real
BiGRU	0.680	0.681	0.694	0.666
+ Emoratio	0.628	0.632	0.665	0.592
+ EmoCred	0.659	0.666	0.709	0.609
+ **Dual Emotion Features**	**0.701**	**0.702**	**0.714**	**0.689**
BERT	0.722	0.728	0.762	0.682
+ Emoratio	0.719	0.724	0.757	0.681
+ EmoCred	0.725	0.728	0.752	**0.699**
+ **Dual Emotion Features**	**0.734**	**0.734**	**0.773**	0.692
HSA-BLSTM	0.776	0.778	0.796	0.686
+ Emoratio	0.771	0.774	0.796	0.663
+ EmoCred	0.777	0.781	0.806	0.646
+ **Dual Emotion Features**	**0.805**	**0.808**	**0.827**	**0.694**

Table 7: Results on *Weibo-20* (temporal data split). Acc. is short for Accuracy.

Experiments
Evaluation Questions

- EQ1: Are Dual Emotion Features more effective than baseline features when used alone for fake news detection? How effective are the different types of features in Dual Emotion Features?

- EQ2: Can Dual Emotion Features help improve the performance of text-based fake news detectors?

- EQ3: How robust do the fake news detection models with Dual Emotion Features in real-world scenarios?

- EQ4: How effective are the components of Dual Emotion Features, including the publisher emotion, social emotion, and emotion gap?