	Acc.	NR F_1	FR F_1	TR F_1	UR F_1
BERT	0.791±0.003 *	0.851±0.008 *	0.765±0.004 *	0.822±0.009 *	0.720±0.010 *
RvNN	0.793±0.003 *	0.817±0.003 *	0.791±0.003 *	0.822±0.004 *	0.745±0.003 *
BiGCN	0.837±0.002 *	0.813±0.003 *	0.846±0.004 *	0.892±0.003 *	0.798±0.002 *
EBGCN	0.846±0.002 *	0.821±0.006 *	0.857±0.005 *	0.889±0.002 *	0.816±0.003 *
RDEA	0.866±0.003 *	0.875±0.006 *	0.872±0.005 *	0.894±0.003 *	0.820±0.006 *
SMG	0.828±0.018 *	0.861±0.020 *	0.840±0.028 *	0.869±0.020 *	0.736±0.049 *
GACL	0.786±0.005 *	0.882±0.008 *	0.740±0.013 *	0.784±0.007 *	0.736±0.009 *
TrustRD	0.866±0.004 *	0.875±0.005 *	0.871±0.005 *	0.896±0.004	0.821±0.003 *
SMAN	0.825±0.004 *	0.810±0.014 *	0.841±0.003 *	0.877±0.006 *	0.772±0.009 *
SBAG	0.853±0.002 *	0.889±0.009 *	0.850±0.002 *	0.866±0.007 *	0.806±0.009 *
GLAN	0.864±0.002 *	0.877±0.006 *	0.866±0.003 *	0.891±0.005 *	0.822±0.004 *
KPG	0.893±0.003	0.921±0.004	0.898±0.009	0.903±0.002	0.847±0.002

Table 1: The standard deviation values and significant test results on Twitter15. A star symbol (*) indicates that our KPG significantly outperforms the baseline on the respective metric, as confirmed by a paired t-test.

	Acc.	NR F_1	FR F_1	TR F_1	UR F_1
BERT	0.753±0.012 *	0.804±0.024 *	0.660±0.008 *	0.837±0.007 *	0.699±0.016 *
RvNN	0.783±0.004 *	0.755±0.003 *	0.737±0.004 *	0.849±0.003 *	0.783±0.004 *
BiGCN	0.854±0.002 *	0.795±0.012 *	0.829±0.035 -	0.919±0.016 -	0.874±0.034 -
EBGCN	0.854±0.004 *	0.796±0.007 *	0.835±0.010 -	0.916±0.007 *	0.868±0.005 *
RDEA	0.865±0.004 *	0.847±0.009 *	0.819±0.005 *	0.922±0.002 -	0.868±0.006 *
SMG	0.841±0.030 *	0.812±0.039 *	0.812±0.047 -	0.898±0.037 -	0.839±0.030 *
GACL	0.755±0.022 *	0.831±0.027 *	0.667±0.032 *	0.794±0.003 *	0.716±0.033 *
TrustRD	0.869±0.002 *	0.844±0.005 *	0.827±0.003 *	0.929±0.004 -	0.874±0.004 *
SMAN	0.831±0.005 *	0.763±0.008 *	0.806±0.008 *	0.919±0.004 -	0.839±0.012 *
SBAG	0.853±0.006 *	0.862±0.005 *	0.799±0.011 *	0.912±0.003 *	0.837±0.011 *
GLAN	0.868±0.003 *	0.861±0.005 *	0.832±0.007 -	0.924±0.007 -	0.857±0.012 *
KPG	0.889±0.004	0.894±0.006	0.836±0.006	0.930±0.007	0.896±0.006

Table 2: The standard deviation values and significant test results on Twitter16. A star symbol (*) indicates that our KPG significantly outperforms the baseline on the respective metric, as confirmed by a paired t-test.

	Acc.	R F_1	NR F_1
BERT	0.821±0.012 *	0.831±0.011 *	0.809±0.013 *
RvNN	0.768±0.003 *	0.774±0.003 *	0.762±0.004 *
BiGCN	0.841±0.003 *	0.842±0.003 *	0.841±0.002 *
EBGCN	0.839±0.002 *	0.841±0.002 *	0.837±0.002 *
RDEA	0.842±0.003 *	0.843±0.003 *	0.842±0.003 *
SMG	0.830±0.004 *	0.830±0.010 *	0.830±0.003 *
GACL	0.837±0.001 *	0.840±0.001 *	0.834±0.001 *
TrustRD	0.846±0.002 *	0.846±0.002 *	0.846±0.002 *
GLAN	0.845±0.003 *	0.849±0.003 *	0.841±0.002 *
SMAN	0.835±0.004 *	0.837±0.005 *	0.833±0.004 *
SBAG	0.839±0.002 *	0.840±0.001 *	0.838±0.002 *
KPG	0.859±0.004	0.863±0.004	0.854±0.004

Table 3: The standard deviation values and significant test results on Pheme. A star symbol (*) indicates that our KPG significantly outperforms the baseline on the respective metric, as confirmed by a paired t-test.

	Acc.	R F_1	NR F_1
BERT	0.888±0.005 *	0.888±0.005 *	0.888±0.005 *
RvNN	0.858±0.003 *	0.858±0.003 *	0.857±0.002 *
BiGCN	0.905±0.001 *	0.907±0.001 *	0.904±0.001 *
EBGCN	0.872±0.003 *	0.900±0.019 *	0.867±0.004 *
RDEA	0.920±0.002 *	0.921±0.002 *	0.919±0.002 *
GACL	0.885±0.001 *	0.885±0.001 *	0.886±0.001 *
TrustRD	0.919±0.002 *	0.920±0.002 *	0.917±0.002 *
GLAN	0.902±0.003 *	0.903±0.004 *	0.902±0.003 *
SMAN	0.907±0.002 *	0.907±0.003 *	0.906±0.002 *
SBAG	0.913±0.002 *	0.914±0.003 *	0.913±0.002 *
KPG	0.949±0.002	0.949±0.002	0.948±0.003

Table 4: The standard deviation values and significant test results on Weibo22. A star symbol (*) indicates that our KPG significantly outperforms the baseline on the respective metric, as confirmed by a paired t-test.