	Acc.	NR F_1	FR F_1	TR F_1	UR F_1
BiGCN	0.837 ± 0.002 *	0.813 ± 0.003 *	0.846 ± 0.004 *	0.892 ± 0.003 *	0.798 ± 0.000 *
EBGCN	0.846 ± 0.002 *	0.821 ± 0.006 *	0.857 ± 0.005 *	0.889 ± 0.002 *	0.816 ± 0.000 *
RDEA	0.866 ± 0.003 *	0.875 ± 0.006 *	0.872 ± 0.005 *	0.894 ± 0.003 *	0.820 ± 0.003 *
TrustRD	0.866 ± 0.004 *	0.875 ± 0.005 *	0.871 ± 0.005 *	0.896 ± 0.004 *	0.821 ± 0.000 *
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
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 *	0.836 ± 0.010	0.916 ± 0.007 *	0.870 ± 0.005 *
RDEA	0.865 ± 0.004 *	0.847 ± 0.009 *	0.819 ± 0.005 *	0.922 ± 0.002	0.868 ± 0.006 *
TrustRD	0.869 ± 0.002 *	0.844 ± 0.005 *	0.827 ± 0.003 *	0.929 ± 0.004	0.874 ± 0.004 *
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
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 *
TrustRD	0.846 ± 0.002 *	0.846 ± 0.002 *	0.846 ± 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
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 *
TrustRD	0.919 ± 0.002 *	0.920 ± 0.002 *	0.917 ± 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.