Table 1: English dataset results

System	Gender n	Acc.	F_1	Age n	Acc.	F_1	Hate Speech n	Acc.	F_1	Bots n	Acc.	F_1	Fake News n	Acc.	F_1	Depression n	Acc.	F_1
winner	all	**82.3**	-	all	83.8	-	all	**74.0**	-	all	**96.0**	-	all	**75.0**	-	all	41.3	-
ST-lr	all	$76.0_{0.4}$	$76.0_{0.4}$	all	$72.1_{0.8}$	$47.4_{2.3}$	all	$64.0_{2.4}$	$63.8_{2.5}$	all	$90.2_{0.2}$	$90.2_{0.2}$	all	$68.0_{0.9}$	$67.8_{0.9}$	all	$28.0_{4.2}$	$20.2_{6.1}$
roberta-xlm	all	$53.2_{6.4}$	$39.5_{12.4}$	all	$73.1_{1.9}$	$41.9_{1.9}$	all	$52.6_{5.2}$	$39.0_{11.3}$	all	$86.6_{0.4}$	$86.3_{0.4}$	all	$57.4_{9.1}$	$47.4_{17.2}$	all	$33.8_{3.4}$	$21.3_{3.3}$
user-char-lr	all	$79.2_{0.3}$	$79.2_{0.3}$	all	$73.9_{0.6}$	$45.0_{1.0}$	all	$62.4_{0.8}$	$62.1_{0.6}$	all	$91.2_{0.1}$	$91.2_{0.1}$	all	$70.5_{1.3}$	$70.4_{1.3}$	all	$35.2_{2.4}$	$24.0_{1.5}$
LDSE	all	74.7	74.7	all	**85.2**	**76.5**	all	70.0	70.0	all	90.6	90.5	all	74.5	74.5	all	**45.0**	**38.2**
CA	0	**75.3**$_{0.0}$	**75.2**$_{0.0}$	0	**63.4**$_{0.0}$	**35.1**$_{0.0}$	0	**70.0**$_{0.0}$	**69.9**$_{0.0}$	0	$52.3_{0.0}$	$38.4_{0.0}$	0	**64.0**$_{0.0}$	**63.9**$_{0.0}$	0	**36.2**$_{0.0}$	**25.5**$_{0.0}$
SN	0	$38.0_{0.0}$	$37.6_{0.0}$	0	$38.7_{0.0}$	$29.7_{0.0}$	0	$45.0_{0.0}$	$44.1_{0.0}$	0	**62.5**$_{0.0}$	**62.5**$_{0.0}$	0	$60.0_{0.0}$	$56.3_{0.0}$	0	$17.5_{0.0}$	$15.9_{0.0}$
CA	all	**76.1**$_{0.5}$	**76.0**$_{0.5}$	all	$65.9_{1.2}$	$36.6_{0.9}$	all	**63.4**$_{3.8}$	**63.3**$_{3.9}$	all	**88.2**$_{0.7}$	**88.0**$_{0.7}$	all	$59.3_{1.0}$	$56.2_{1.7}$	all	$34.2_{8.8}$	$19.4_{5.1}$
SN	all	$76.0_{0.5}$	$76.0_{0.5}$	all	**78.3**$_{1.4}$	**61.5**$_{8.1}$	all	$60.4_{2.6}$	$60.2_{2.5}$	all	$86.0_{0.5}$	$85.8_{0.6}$	all	**65.7**$_{1.7}$	**65.6**$_{1.6}$	all	**32.1**$_{4.0}$	**22.9**$_{4.5}$
CA	256	**77.3**$_{0.9}$	**77.3**$_{0.9}$	32	$72.3_{2.3}$	$44.6_{4.5}$	8	**70.0**$_{0.0}$	**69.9**$_{0.0}$	512	**87.8**$_{0.9}$	**87.7**$_{1.0}$	48	$62.6_{0.9}$	$61.7_{1.6}$	16	**33.5**$_{1.0}$	$24.7_{1.2}$
SN	512	$76.3_{0.5}$	$76.3_{0.5}$	32	**72.4**$_{4.3}$	**61.2**$_{7.9}$	64	$62.2_{2.9}$	$62.1_{2.9}$	512	$87.4_{0.9}$	$87.2_{1.0}$	48	**65.5**$_{3.6}$	**65.1**$_{3.6}$	8	$29.8_{2.7}$	**25.7**$_{5.1}$

Table 1: **Test set results** of CA and SN compared to several baseline and reference approaches. n shows the number of training users. Top results without confidence interval overlaps are highlighted with **bold**.

Table 2: Spanish dataset results

System	Gender n	Acc.	F_1	Age n	Acc.	F_1	Hate Speech n	Acc.	F_1	Bots n	Acc.	F_1	Fake News n	Acc.	F_1
winner	all	**83.2**	-	all	**79.6**	-	all	**85.0**	-	all	**93.3**	-	all	**82.0**	-
ST-lr	all	$70.3_{0.3}$	$70.3_{0.3}$	all	$62.7_{2.0}$	$48.7_{3.4}$	all	$80.8_{0.8}$	$80.6_{0.8}$	all	$87.3_{0.4}$	$87.3_{0.4}$	all	$76.5_{1.1}$	$76.5_{1.1}$
roberta-xlm	all	$53.8_{5.5}$	$42.2_{11.4}$	all	$50.0_{0.0}$	$16.7_{0.0}$	all	$75.6_{1.2}$	$75.2_{1.2}$	all	$86.2_{0.5}$	$86.1_{0.5}$	all	$71.4_{10.7}$	$67.9_{17.3}$
user-char-lr	all	$77.8_{0.3}$	$77.8_{0.3}$	all	$69.5_{1.1}$	$56.5_{1.7}$	all	$80.1_{1.7}$	$79.9_{1.7}$	all	$92.5_{0.2}$	$92.5_{0.2}$	all	$75.6_{1.3}$	$75.4_{1.3}$
LDSE	all	71.9	71.9	all	78.4	64.9	all	82.0	82.0	all	83.7	83.7	all	79.0	78.9
CA	0	**68.3**$_{0.0}$	**68.2**$_{0.0}$	0	$21.6_{0.0}$	$16.4_{0.0}$	0	**79.0**$_{0.0}$	**78.6**$_{0.0}$	0	$50.1_{0.0}$	$33.6_{0.0}$	0	**51.0**$_{0.0}$	$36.3_{0.0}$
SN	0	$38.1_{0.0}$	$33.9_{0.0}$	0	$48.6_{0.0}$	**32.6**$_{0.0}$	0	$49.0_{0.0}$	$34.5_{0.0}$	0	$41.5_{0.0}$	**38.4**$_{0.0}$	0	$49.5_{0.0}$	$44.3_{0.0}$
CA	all	**71.7**$_{0.3}$	**71.7**$_{0.3}$	all	$66.4_{5.8}$	$51.1_{9.8}$	all	$76.6_{1.3}$	$76.4_{1.5}$	all	**87.1**$_{1.4}$	**87.0**$_{1.4}$	all	**78.3**$_{1.2}$	**78.0**$_{1.4}$
SN	all	$71.0_{0.6}$	$71.0_{0.6}$	all	**66.8**$_{2.2}$	**51.6**$_{4.3}$	all	**77.4**$_{0.5}$	**77.1**$_{0.6}$	all	$83.6_{0.4}$	$83.2_{0.5}$	all	$77.8_{2.1}$	$77.6_{2.2}$
CA	512	**73.7**$_{1.4}$	**73.4**$_{1.8}$	8	$40.9_{11.7}$	$27.8_{7.6}$	64	$80.0_{2.2}$	$79.8_{2.5}$	512	**88.3**$_{1.3}$	**88.2**$_{1.3}$	48	$74.7_{1.4}$	$74.4_{1.7}$
SN	512	$72.7_{1.0}$	$72.5_{0.9}$	16	**66.8**$_{4.9}$	**56.0**$_{6.2}$	48	**80.8**$_{1.5}$	**80.7**$_{1.6}$	512	$86.5_{1.0}$	$86.4_{1.1}$	64	**76.3**$_{1.4}$	**76.2**$_{1.4}$

Table 2: **Test set results** of CA and SN compared to several baseline and reference approaches. n shows the number of training users. Top results without confidence interval overlaps are highlighted with **bold**.