Type of Paper:

Original Article (Appendix)

Title:

Appendix to: A Study of Web Page Understandability for Consumer Health Search

Authors:

Joao Palotti[1,3], MSc; Guido Zuccon[2], PhD; Allan Hanbury[3,4], PhD

Affiliations:

[1] Qatar Computing Research Institute, Doha, Qatar

[2] Queensland University of Technology, Brisbane, Australia

[3] Vienna University of Technology, Vienna, Austria

[4] Complexity Science Hub Vienna, Vienna, Austria

Corresponding Author:

Allan Hanbury, Ph.D.
TU Wien (Vienna University of Technology), Favoritenstrasse 9-11/188, 1040 Vienna, Austria. Phone: +43 1 58801 188310. Email: allan.hanbury@tuwien.ac.at

Appendix

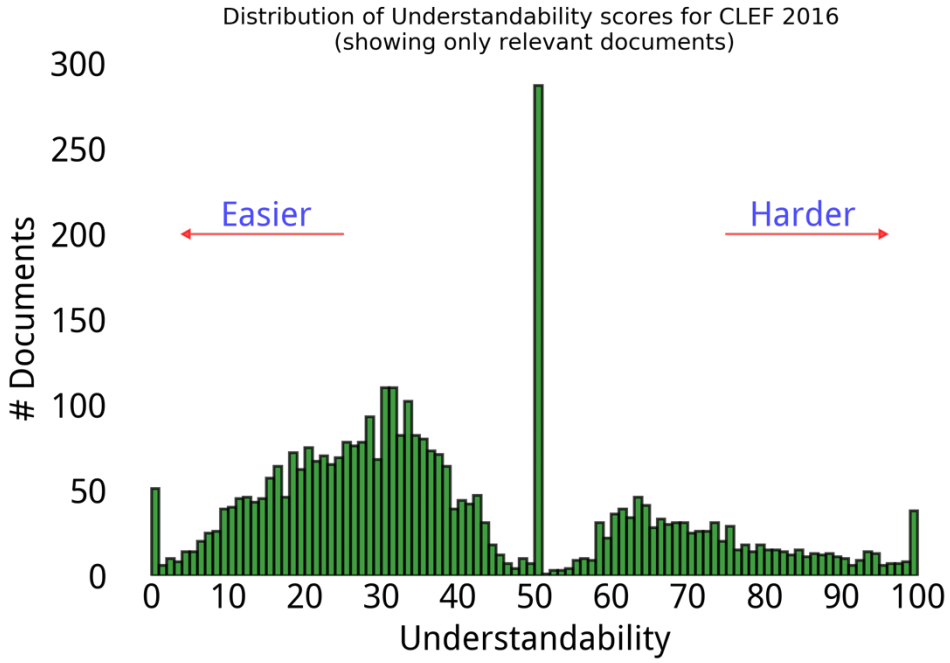

Figure 1. *Understandability label distribution for CLEF eHealth 2016.*

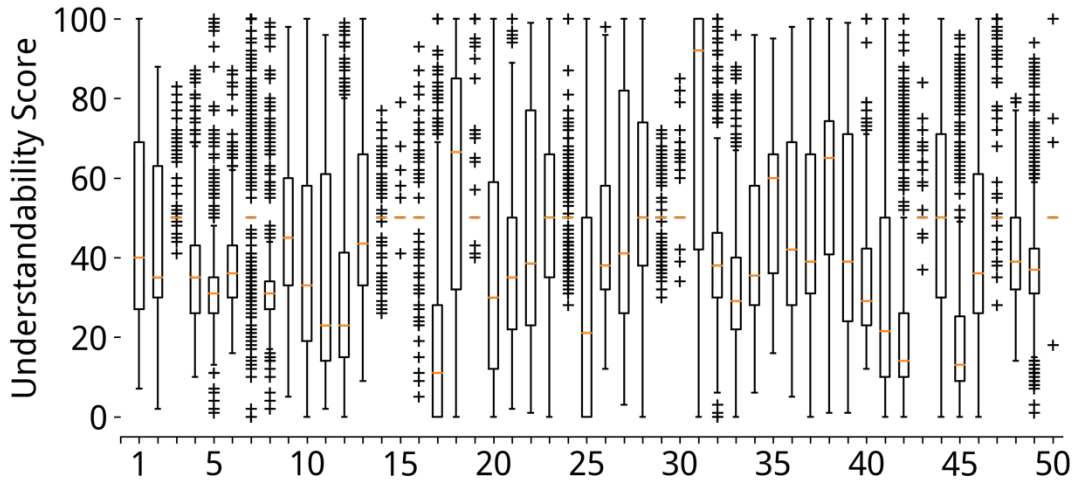

Figure 2. *Understandability distribution broken per topic for CLEF eHealth 2016.*

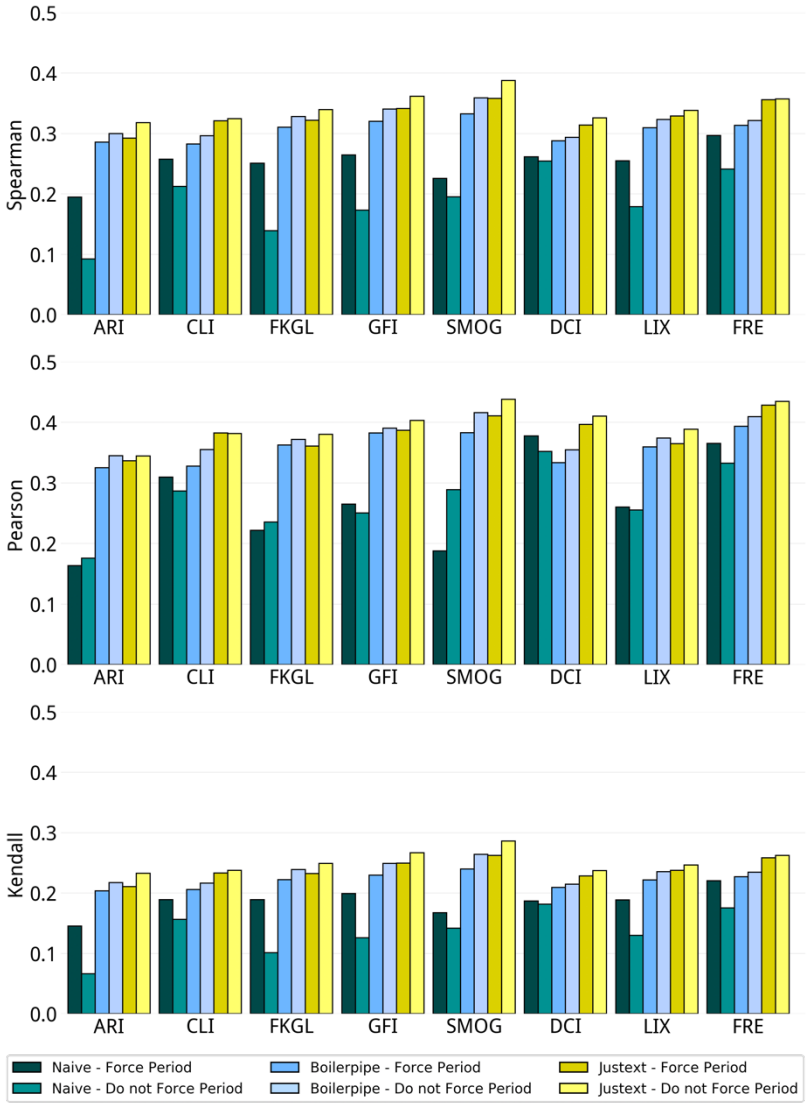

Figure 3. *In Palotti et al. [1], authors investigates the influence of HTML preprocessing when readability formulas are used to estimate Webpage understandability. They found that readability formulas are heavily affected by the methods used to extract text from the HTML source, but they did not measure how correlated each method was with a human ground truth. We further extended Palotti et al.'s work to understand the influence of HTML preprocessing on automatic understandability methods and establish best practices. We show the correlation of each preprocessing combination with the ground truth assessments for CLEF 2015.*

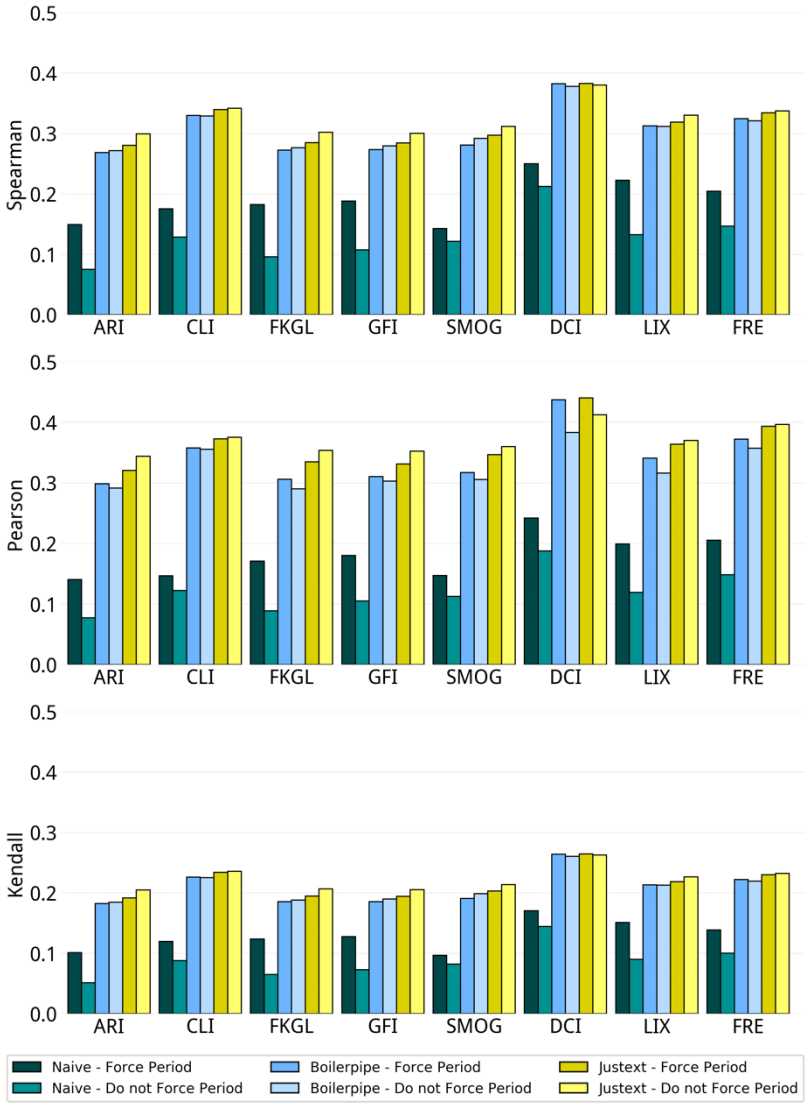

Figure 4. *In Palotti et al. [1], authors investigates the influence of HTML preprocessing when readability formulas are used to estimate Webpage understandability. They found that readability formulas are heavily affected by the methods used to extract text from the HTML source, but they did not measure how correlated each method was with a human ground truth. We further extended Palotti et al.'s work to understand the influence of HTML preprocessing on automatic understandability methods and establish best practices. We show the correlation of each preprocessing combination with the ground truth assessments for CLEF 2016.*

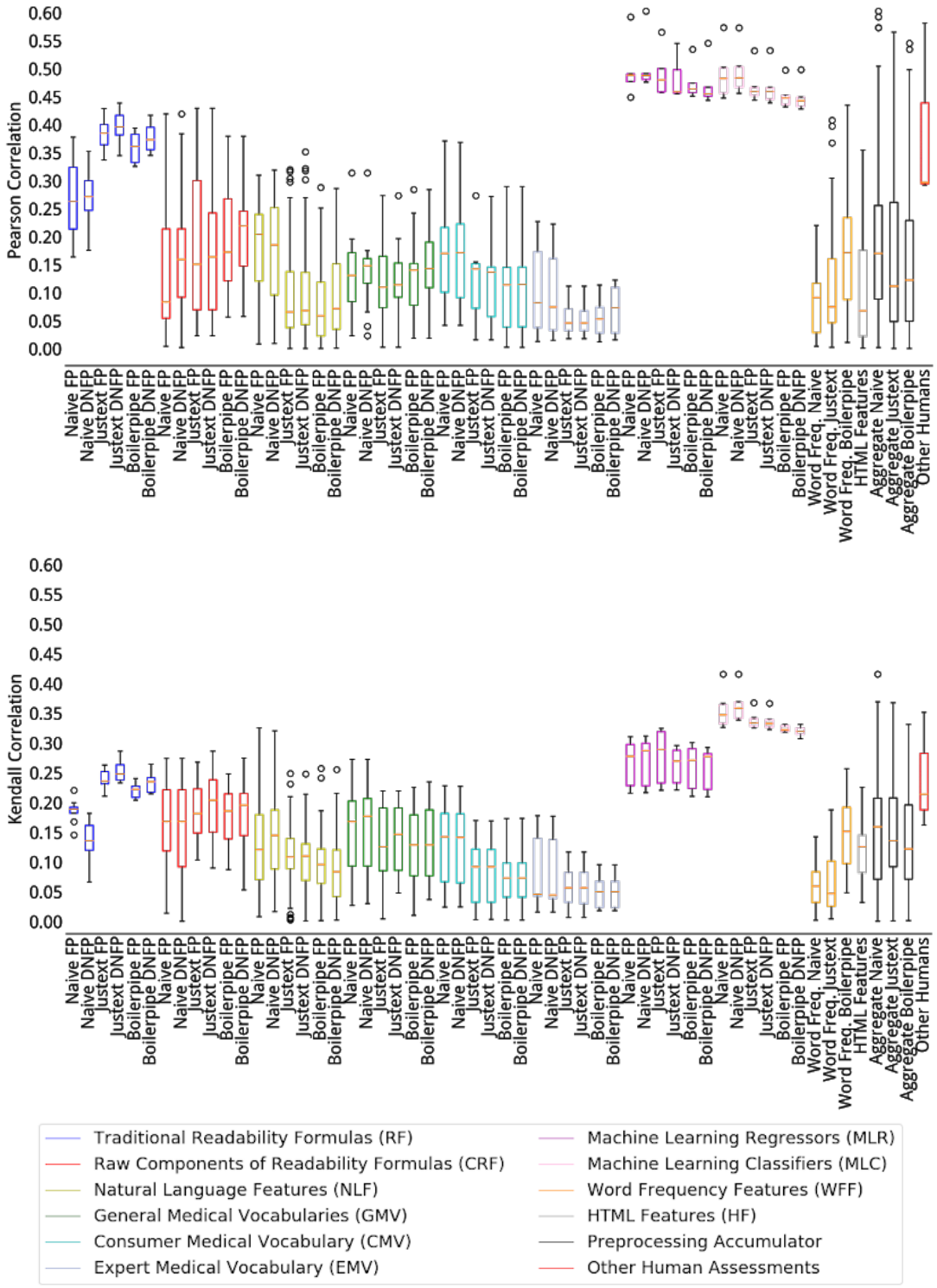

Figure 5. *Correlations between understandability estimators and human assessments for CLEF 2015.*

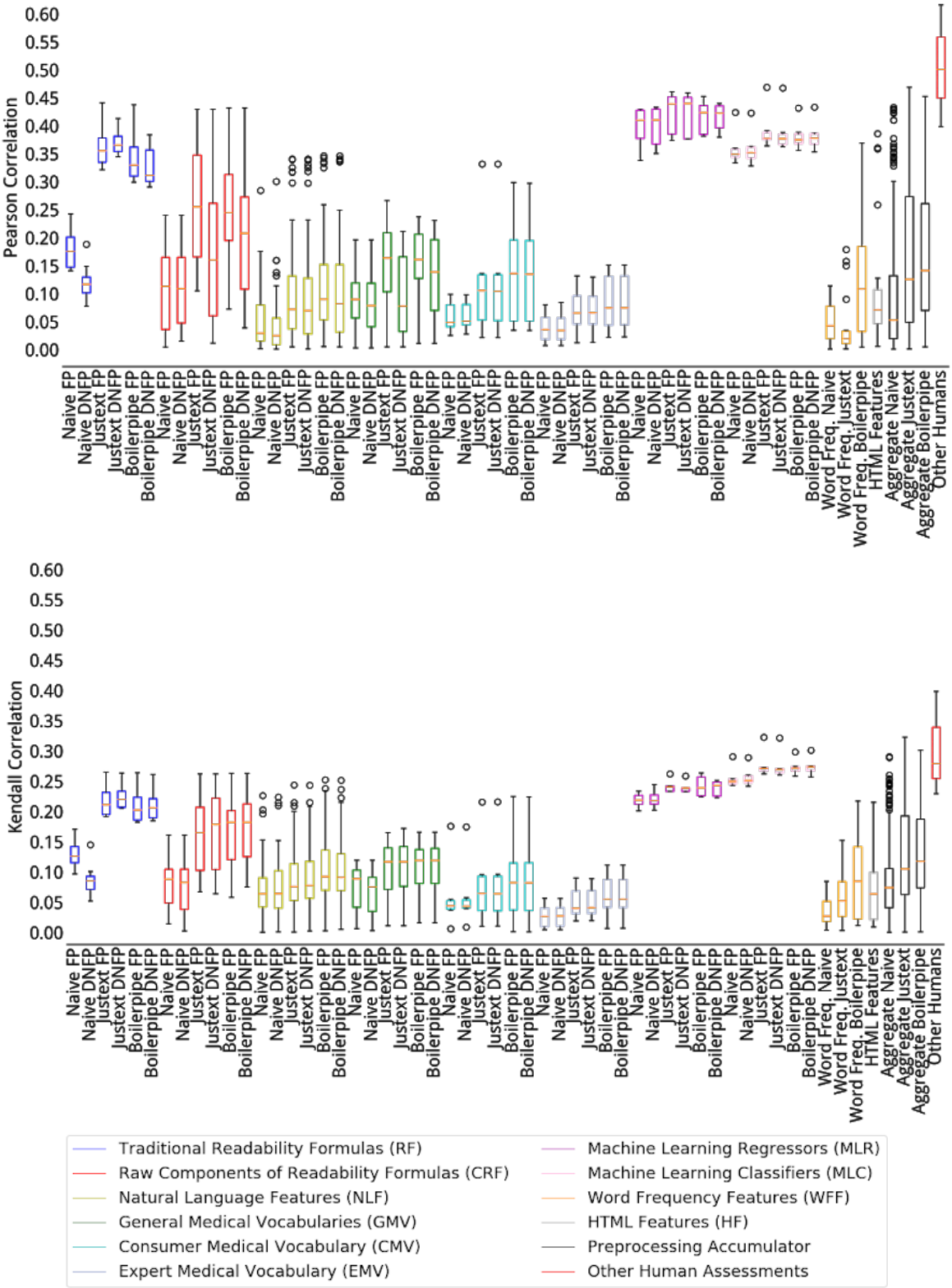

Figure 6. *Correlations between understandability estimators and human assessments for CLEF 2015.*

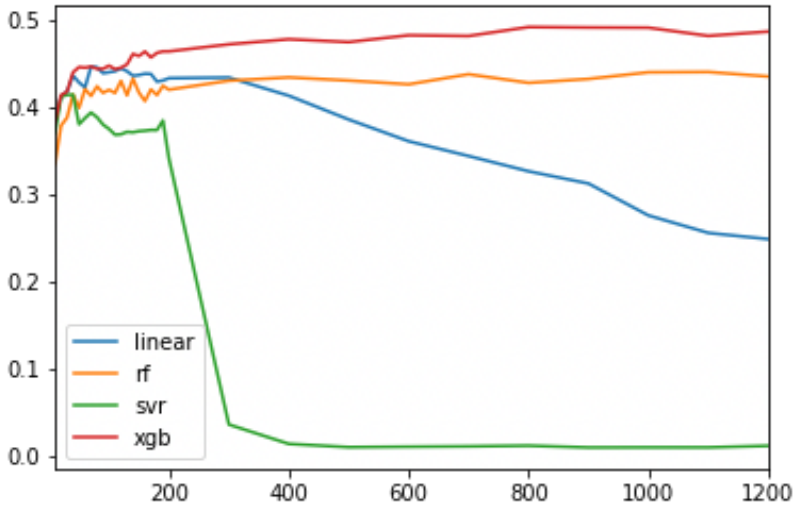

Figure 7. *To study the impact of feature sets, we varied the number of features each regressor algorithm was trained with. For that, we selected features with Python's f_regression algorithm from Sklearn package. The eXtreme Gradient Boosting (XGB) and Random Forest Regressor were marginally influenced by the selection of features, therefore we used XGB with all features devised in our experiments.*

Index	Rerank	Run	Official CLEF 2016 Metrics				New Metrics to Evaluate Underst. in Retrieval - Sec. 3							
			RBP	RBP Res.	uRBP	uRBP Res.	RBP_u	RBP_u Res.	*HRBP*	HRBP Res.	Unj	RBP^*_r	RBP^*_u	*HRBP**
1		GUIR [1] (Best Run)	**28.11**	7.65	**18.12**	7.19	**45.69**	8.86	**25.61**	6.50	0.01	**28.29**	**46.03**	**25.79**
2	No Rerank	ECNU [2] (Runner Up)	27.70	7.37	17.55	**7.34**	43.89°	8.66	25.35	6.26	0.01	27.77	44.18°	25.48
3		Plain BM25 Baseline	25.28°	**8.24**	16.05°	6.94	42.08°	**10.97**	22.97°	**7.19**	**0.06**	26.01°	43.89°	23.93°
4		Based on GUIR	24.70$^{\dagger\circ}$	8.70	16.83$^{\dagger\circ}$	7.27	49.10$^{\dagger\circ}$	10.62	24.94	7.50	0.03	25.24$^{\dagger\circ}$	50.33$^{\dagger\circ}$	25.54
5	Dale-Chall Top 15	Based on ECNU	24.78$^{\dagger\circ}$	7.83	16.64°	7.16	48.88$^{\dagger\circ}$	9.71	24.80	6.50	0.02	25.12$^{\dagger\circ}$	49.64$^{\dagger\circ}$	25.21
6		Based on BM25	23.22$^{\dagger\circ}$	8.78	15.85 $^{\circ}$	6.94	47.09$^{\dagger\circ}$	11.83	24.01	7.42	0.07	24.04$^{\dagger\circ}$	48.60$^{\dagger\circ}$	24.82
7		Based on GUIR	22.19$^{\dagger\circ}$	9.37	15.36$^{\dagger\circ}$	6.98	48.71$^{\dagger\circ}$	12.30	23.21$^{\dagger\circ}$	8.12	0.06	23.26$^{\dagger\circ}$	51.39$^{\dagger\circ}$	24.45$^{\dagger\circ}$
8	Dale-Chall Top 20	Based on ECNU	23.01$^{\dagger\circ}$	8.93	15.70$^{\dagger\circ}$	6.91	48.99$^{\dagger\circ}$	11.69	23.73$^{\dagger\circ}$	7.80	0.05	23.84$^{\dagger\circ}$	51.00$^{\dagger\circ}$	24.66
9		Based on BM25	21.58$^{\dagger\circ}$	9.51	14.83$^{\dagger\circ}$	7.02	46.99†	13.00	22.89°	8.06	0.09	22.93$^{\dagger\circ}$	49.55$^{\dagger\circ}$	24.26
10		Based on GUIR	16.18$^{\dagger\circ}$	15.24	11.56$^{\dagger\circ}$	6.80	41.79$^{\dagger\circ}$	24.49	18.10$^{\dagger\circ}$	14.42	0.22	20.90$^{\dagger\circ}$	53.28$^{\dagger\circ}$	23.27$^{\dagger\circ}$
11	Dale-Chall Top 50	Based on ECNU	16.88$^{\dagger\circ}$	17.37	11.78$^{\dagger\circ}$	**7.30**	40.76$^{\dagger\circ}$	23.77	18.30$^{\dagger\circ}$	**15.57**	**0.24**	21.34$^{\dagger\circ}$	52.07$^{\dagger\circ}$	23.33$^{\dagger\circ}$
12		Based on BM25	15.06$^{\dagger\circ}$	15.35$^{\dagger\circ}$	10.55	6.62	40.03 $^{\circ}$	23.88	16.55$^{\dagger\circ}$	13.83	**0.24**	19.42$^{\dagger\circ}$	51.69$^{\dagger\circ}$	21.59$^{\dagger\circ}$
13		Based on GUIR	**25.16**$^{\dagger\circ}$	8.09	**17.27**$^{\dagger\circ}$	7.12	**50.96**$^{\dagger\circ}$	10.11	**25.16**	6.89	0.02	**25.61**$^{\dagger\circ}$	52.00$^{\dagger\circ}$	**25.68**
14	XGB Top 15	Based on ECNU	24.18$^{\dagger\circ}$	7.69	16.54 $^{\circ}$	7.09	50.00$^{\dagger\circ}$	9.91	24.56	6.65	0.02	24.56$^{\dagger\circ}$	50.74$^{\dagger\circ}$	25.01
15		Based on BM25	22.33$^{\dagger\circ}$	8.14	15.46	6.76	47.90$^{\dagger\circ}$	12.13	22.89°	7.25	0.07	23.11$^{\dagger\circ}$	49.43$^{\dagger\circ}$	23.69°
16		Based on GUIR	22.38$^{\dagger\circ}$	9.49	15.61$^{\dagger\circ}$	7.05	50.45$^{\dagger\circ}$	12.08	23.30$^{\dagger\circ}$	8.16	0.05	23.62$^{\dagger\circ}$	52.98$^{\dagger\circ}$	24.68
17	XGB Top 20	Based on ECNU	22.95$^{\dagger\circ}$	8.82	15.95$^{\dagger\circ}$	7.02	50.42$^{\dagger\circ}$	11.70	23.97°	7.56	0.04	23.68$^{\dagger\circ}$	52.15$^{\dagger\circ}$	24.73
18		Based on BM25	20.65$^{\dagger\circ}$	9.42	14.46$^{\dagger\circ}$	6.84	47.74$^{\dagger\circ}$	13.56	21.93°	8.34	0.09	21.98$^{\dagger\circ}$	50.28$^{\dagger\circ}$	23.27°
19		Based on GUIR	16.65$^{\dagger\circ}$	15.73	12.39$^{\dagger\circ}$	6.84	43.49$^{\dagger\circ}$	23.63	18.70$^{\dagger\circ}$	13.74	0.22	21.13$^{\dagger\circ}$	**55.07**$^{\dagger\circ}$	23.58$^{\dagger\circ}$
20	XGB Top 50	Based on ECNU	16.19$^{\dagger\circ}$	**17.01**	11.82$^{\dagger\circ}$	7.27	43.05°	**24.75**	18.27$^{\dagger\circ}$	14.41	**0.24**	20.16$^{\dagger\circ}$	54.70$^{\dagger\circ}$	22.96$^{\dagger\circ}$
21		Based on BM25	15.43$^{\dagger\circ}$	15.37	11.33$^{\dagger\circ}$	6.48	41.93°	23.65	17.43$^{\dagger\circ}$	13.40	0.26	19.58$^{\dagger\circ}$	54.04$^{\dagger\circ}$	22.17$^{\dagger\circ}$
22		Based on GUIR	**27.23**$^{\dagger\circ}$	7.76	**18.31**	**7.23**	49.69$^{\dagger\circ}$	9.18	26.49$^{\dagger\circ}$	6.62	0.01	**27.46**$^{\dagger\circ}$	50.07$^{\dagger\circ}$	**26.69**$^{\dagger\circ}$
23	RRF (XGB & Orig.) Top 15	Based on ECNU	26.60$^{\dagger\circ}$	7.41	17.81	7.19	48.67$^{\dagger\circ}$	8.80	26.02	6.09	0.01	26.76$^{\dagger\circ}$	49.10$^{\dagger\circ}$	26.27†
24		Based on BM25	24.57°	8.15	16.51°	6.91	46.76†	11.23	24.16†	7.20	0.06	25.32°	48.52$^{\dagger\circ}$	25.08†
25		Based on GUIR	26.21$^{\dagger\circ}$	7.96	17.73	7.19	50.29$^{\dagger\circ}$	9.58	25.89	6.73	0.03	26.53$^{\dagger\circ}$	50.98$^{\dagger\circ}$	26.25
26	RRF (XGB & Orig.) Top 20	Based on ECNU	26.15$^{\dagger\circ}$	7.64	17.69	7.09	49.70$^{\dagger\circ}$	9.28	**26.07**	6.39	0.02	26.38$^{\dagger\circ}$	50.32$^{\dagger\circ}$	26.35
27		Based on BM25	24.04$^{\dagger\circ}$	8.24	16.32°	6.87	47.69$^{\dagger\circ}$	11.40	24.08$^{\dagger\circ}$	7.35	0.06	24.82$^{\dagger\circ}$	49.52$^{\dagger\circ}$	25.01†
28		Based on GUIR	24.09$^{\dagger\circ}$	**9.44**	16.85$^{\dagger\circ}$	7.02	50.55$^{\dagger\circ}$	11.76	24.76	**8.01**	0.07	25.08$^{\dagger\circ}$	**52.84**$^{\dagger\circ}$	25.84
29	RRF (XGB & Orig.) Top 50	Based on ECNU	24.17$^{\dagger\circ}$	8.67	16.75°	7.12	**50.63**$^{\dagger\circ}$	11.66	25.00	7.61	0.07	24.90$^{\dagger\circ}$	52.50$^{\dagger\circ}$	25.84
30		Based on BM25	22.28$^{\dagger\circ}$	8.87	15.50	6.76	48.79$^{\dagger\circ}$	**12.90**	23.13$^{\dagger\circ}$	7.82	**0.10**	23.46$^{\dagger\circ}$	51.89$^{\dagger\circ}$	24.57
*		Based on GUIR	26.93$^{\dagger\circ}$	7.95	**17.96**	7.34	48.40$^{\dagger\circ}$	9.28	26.20	6.77	0.02	**27.20**$^{\dagger\circ}$	48.86$^{\dagger\circ}$	26.49
*	RRF (DCI & Orig.) Top 15	Based on ECNU	**26.94**	7.53	17.76	7.30	47.78$^{\dagger\circ}$	8.94	26.18	6.22	0.01	27.10	48.29$^{\dagger\circ}$	26.42†
*		Based on BM25	24.91	8.12	16.58	7.09	45.85$^{\dagger\circ}$	10.75	24.67†	6.99	0.06	25.68	47.55$^{\dagger\circ}$	25.56†
*		Based on GUIR	26.09$^{\dagger\circ}$	8.11	17.58	7.27	48.79$^{\dagger\circ}$	9.76	25.88	6.88	0.03	26.47$^{\dagger\circ}$	49.58$^{\dagger\circ}$	26.29
*	RRF (DCI & Orig.) Top 20	Based on ECNU	26.51$^{\dagger\circ}$	7.88	17.56	**7.37**	48.57$^{\dagger\circ}$	9.53	**26.27**	6.59	0.02	26.75$^{\dagger\circ}$	49.33$^{\dagger\circ}$	**26.58**†
*		Based on BM25	24.73	8.21	16.63	7.12	46.63†	11.00	24.85†	7.11	0.06	25.51°	48.44$^{\dagger\circ}$	25.77†
*		Based on GUIR	23.39$^{\dagger\circ}$	**9.72**	16.21$^{\dagger\circ}$	7.16	**49.11**$^{\dagger\circ}$	12.40	24.20$^{\dagger\circ}$	**8.33**	0.07	24.60$^{\dagger\circ}$	**51.45**$^{\dagger\circ}$	25.52
*	RRF (DCI & Orig.) Top 50	Based on ECNU	24.26$^{\dagger\circ}$	9.23	16.43 $^{\circ}$	7.34	48.90$^{\dagger\circ}$	11.54	24.84	7.81	0.06	25.15$^{\dagger\circ}$	50.91$^{\dagger\circ}$	25.85
*		Based on BM25	22.64$^{\dagger\circ}$	9.26	15.47	7.16	47.25$^{\dagger\circ}$	**12.79**	23.67	7.86	**0.09**	23.89$^{\dagger\circ}$	50.26$^{\dagger\circ}$	25.11
31		Combo 1 on BM25	20.42$^{\dagger\circ}$	17.61	13.00$^{\dagger\circ}$	7.41	32.17$^{\dagger\circ}$	24.61	18.39$^{\dagger\circ}$	14.41	0.28	25.25°	43.19°	23.83°
32		Combo 2 on BM25	24.98$^{\dagger\circ}$	19.83	15.30$^{\dagger\circ}$	8.09	35.09$^{\dagger\circ}$	25.14	22.26°	17.50	0.24	30.41	46.09	28.28$^{\dagger\circ}$
33	XGB LeToR	Combo 3 on BM25	26.35†	**20.48**	15.88$^{\dagger\circ}$	8.16	34.73$^{\dagger\circ}$	24.69	21.81†	17.41	0.22	32.25°	45.44	28.22$^{\dagger\circ}$
34		Combo 4 on BM25	16.16$^{\dagger\circ}$	19.48	10.76$^{\dagger\circ}$	7.27	**36.75**$^{\dagger\circ}$	**28.51**	16.77$^{\dagger\circ}$	**17.80**	**0.29**	22.20$^{\dagger\circ}$	**50.06**$^{\dagger\circ}$	23.32°
35		Combo 5 on BM25	**26.76**$^{\circ}$	**20.48**	**16.19**$^{\circ}$	**8.34**	35.26$^{\dagger\circ}$	24.13	**22.96**	17.59	0.22	**32.60**†	45.87	**29.20**$^{\dagger\circ}$

Table 1. *We expanded retrieval results including the experiments with Reciprocal Rank Fusion (RRF) of Dale-Chall Index Runs (indices 4-12) and the original runs (indices 1-3). These results confirm the superiority of using XGB rather than DCI in terms of understandability of the results retrieved.*

Idx	Rerank	Run	Official CLEF 2015 Measures							New Measures to Evaluate Understandability in Retrieval																		
			RBP	P_{bl}	P_e	Res.	uRBP	P_{bl}	P_e	Res.	RBP_u	P_{bl}	P_e	Res.	H_{rbp}	P_{bl}	P_e	Res.	Unj	RBP_e^*	P_{bl}	P_e	RBP_u^*	P_{bl}	P_e	H_{rbp}^*	P_{bl}	P_e
1	No Rerank	ECNU (Best Run)	**51.57**	-	-	8.95	**50.51**	-	-	8.95	59.55	-	-	10.09	**46.22**	-	-	8.62	.00	**51.57**	-	-	59.55	-	-	**46.22**	-	-
2		KISTI (2nd Best)	36.72	-	.036	8.06	35.92	-	.035	7.32	64.50	-	.237	11.54	37.56	-	.028	7.89	**.03**	37.07	-	.049	65.31	-	.156	37.96	-	.037
3		Plain BM25 Baseline	31.20	-	.000	8.76	30.51	-	.000	7.65	**67.60**	-	.066	12.20	35.75	-	.009	8.76	**.03**	31.57	-	.000	**68.94**	-	0.021	36.42	-	.015
4	SMOG Top 15	Based on ECNU	38.16	.000	.000	20.09	37.36	.000	.000	8.95	55.11	.013	.013	22.14	37.59	.000	.000	18.98	.14	45.45	.005	.005	62.58	.161	.161	43.65	.167	.167
5		Based on KISTI	31.28	.005	.000	10.21	30.59	.005	.000	7.48	67.05	.260	.126	13.95	34.23	.132	.001	10.05	.05	33.12	.020	.000	69.10	.085	.037	36.02	.337	.008
6		Based on BM25	24.39	.001	.000	11.46	23.83	.001	.000	7.16	67.69	.962	.104	17.66	28.97	.000	.000	11.46	.10	26.28	.005	.000	72.82	.018	.001	31.53	.008	.001
7	SMOG Top 20	Based on ECNU	34.88	.000	.000	25.96	34.13	.000	.000	8.95	54.15	.025	.025	27.91	35.34	.000	.000	25.02	.20	44.87	.004	.004	66.20	.005	.005	44.88	.519	.519
8		Based on KISTI	28.01	.002	.000	11.05	27.39	.002	.000	7.32	66.61	.356	.170	15.44	30.93	.009	.000	10.82	.08	30.87	.015	.000	69.99	.031	.018	33.81	.074	.002
9		Based on BM25	22.83	.000	.000	13.48	22.31	.000	.000	7.32	63.61	.065	.546	22.44	26.52	.000	.000	13.48	.15	26.22	.005	.000	72.72	.018	.000	30.87	.008	.000
10	SMOG Top 50	Based on ECNU	21.83	.000	.000	36.63	21.34	.000	.000	8.95	41.71	.000	.000	46.89	23.65	.000	.000	36.63	.45	39.88	.000	.000	71.61	.001	.001	43.86	.278	.278
11		Based on KISTI	21.00	.000	.000	18.67	20.53	.000	.000	7.32	59.72	.076	.523	26.67	24.88	.000	.000	18.67	.23	27.20	.002	.000	72.47	.004	.004	31.90	.041	.000
12		Based on BM25	15.20	.000	.000	18.73	14.86	.000	.000	6.51	49.87	.000	.005	36.41	17.79	.000	.000	18.73	.32	21.22	.002	.000	73.17	.069	.001	25.78	.000	.000
13	XGB Top 15	Based on ECNU	**39.77**	.000	.000	21.59	**38.90**	.000	.000	9.11	54.84	.021	.021	24.22	**38.35**	.000	.000	20.72	.15	47.00	.004	.004	64.28	.004	.004	45.22	.555	.555
14		Based on KISTI	31.36	.017	.000	8.95	30.63	.016	.000	6.83	68.63	.065	.042	13.63	33.78	.055	.001	8.78	.05	32.80	.043	.001	70.87	.010	.010	35.24	.144	.005
15		Based on BM25	23.38	.001	.000	11.36	22.84	.001	.000	7.16	66.79	.700	.194	19.43	27.60	.000	.000	11.36	.10	26.35	.007	.000	73.48	.009	.001	31.35	.003	.000
16	XGB Top 20	Based on ECNU	34.91	.000	.000	27.19	34.12	.000	.000	9.11	52.69	.010	.010	30.19	34.89	.000	.000	25.95	.25	46.71	.003	.003	67.26	.001	.001	**45.81**	.705	.705
17		Based on KISTI	29.04	.017	.000	10.10	28.35	.017	.000	6.51	**69.10**	.073	.033	15.86	32.00	.022	.000	9.94	.07	31.82	.086	.000	73.19	.000	.001	34.84	.134	.004
18		Based on BM25	21.83	.001	.000	12.88	21.32	.001	.000	6.51	64.16	.167	.550	25.29	25.47	.000	.000	12.88	.16	26.56	.023	.000	76.26	.000	.000	31.45	.026	.001
19	XGB Top 50	Based on ECNU	22.75	.000	.000	33.65	22.22	.000	.000	8.79	43.36	.000	.000	49.18	24.90	.000	.000	33.65	**.45**	40.69	.000	.000	74.39	.000	.000	44.65	.421	.421
20		Based on KISTI	18.69	.001	.000	17.21	18.25	.001	.000	6.67	56.87	.032	.255	33.37	21.82	.000	.000	17.21	.29	27.69	.007	.000	76.44	.000	.000	44.65	.421	.066
21		Based on BM25	17.47	.004	.000	20.95	17.00	.004	.000	6.02	47.21	.000	.003	43.81	19.22	.000	.000	2.98	.41	27.09	.463	.000	**79.77**	.000	.000	31.35	.090	.001
22	RRF (XGB & Orig.) Top 15	Based on ECNU	**47.81**	.002	.002	12.85	**46.78**	.001	.001	8.95	60.04	.746	.746	15.04	**44.69**	.198	.198	12.34	.10	**50.09**	.157	.157	62.98	.001	.001	46.85	.539	.53
23		Based on KISTI	33.78	.033	.002	7.71	33.02	.032	.002	6.83	68.57	.006	.023	12.02	35.72	.096	.005	7.55	.03	34.34	.038	.004	69.67	.002	.011	36.26	.105	.010
24		Based on BM25	26.85	.000	.000	12.13	26.23	.000	.000	7.48	66.64	.464	.166	15.98	31.52	.000	.000	12.13	.07	28.35	.004	.000	70.65	.144	.005	33.70	.007	.002
25	RRF (XGB & Orig.) Top 20	Based on ECNU	46.49	.000	.000	15.16	45.48	.000	.000	9.11	59.95	.981	.981	17.12	43.69	.074	.074	14.54	.12	49.95	.153	.153	64.30	.000	.000	47.01	.543	.543
26		Based on KISTI	32.72	.011	.000	8.45	31.97	.011	.000	7.00	69.06	.007	.020	12.77	35.14	.070	.003	8.28	.04	33.83	.028	.002	70.83	.001	.005	36.29	.173	.011
27		Based on BM25	25.64	.000	.000	12.51	25.05	.000	.000	7.16	66.55	.434	.174	17.31	30.14	.000	.000	12.51	.09	27.64	.002	.000	71.79	.017	.002	32.96	.011	.002
28	RRF (XGB & Orig.) Top 50	Based on ECNU	38.97	.000	.000	21.40	38.08	.000	.000	8.79	57.37	.272	.272	25.44	39.54	.002	.002	19.83	**.24**	47.00	.010	.010	67.95	.000	.000	**47.12**	.715	.715
29		Based on KISTI	27.78	.001	.000	11.24	27.13	.001	.000	6.83	67.83	.188	.089	16.75	31.07	.006	.000	11.24	.09	31.33	.007	.000	**73.06**	.000	.001	34.85	.089	.003
30		Based on BM25	19.28	.000	.000	17.11	18.86	.000	.000	7.00	57.40	.001	.169	27.02	22.78	.000	.000	17.11	.19	25.06	.000	.000	71.56	.181	.008	30.26	.003	.000
31	XGB LeToR	LTR 1 on BM25	24.86	.003	.000	17.39	24.32	.003	.000	7.81	55.60	.000	.048	24.11	28.89	.002	.000	17.39	.22	29.67	.247	.000	**66.41**	.332	.155	34.76	.316	.001
32		LTR 2 on BM25	**30.72**	.880	.000	21.25	**30.08**	.868	.000	8.46	48.87	.000	.000	28.82	**31.76**	.096	.000	18.99	.26	37.09	.065	.000	61.89	.004	.824	**39.17**	.265	.023
33		LTR 3 on BM25	28.92	.186	.000	24.35	28.32	.190	.000	8.46	49.02	.000	.000	32.11	30.14	.033	.000	23.83	.31	**37.32**	.199	.000	63.86	.015	.576	39.84	.234	.039
34		LTR 4 on BM25	25.65	.004	.000	25.72	25.09	.004	.000	8.30	49.00	.000	.001	33.39	27.45	.000	.000	24.40	**.33**	35.82	.190	.000	66.14	.313	.163	38.21	.577	.011
35		LTR 5 on BM25	30.21	.554	.000	20.79	29.59	.567	.000	8.62	48.47	.000	.000	27.88	30.95	.039	.000	19.99	.25	37.11	.055	.000	61.25	.006	.888	39.15	.169	.040

Table 2. *Results obtained by integrating understandability estimations within retrieval methods on CLEF 2015. Baseline runs are reported at table indices 1-3 (the index column is labelled Index). Re-ranking experiments are reported at indices 4-21. Fusion experiments are reported at indices 22-30. Learning to rank experiments are reported at indices 31-35. All measures were calculated up to rank n = 10. The highest result of each set of experiments is reported in bold face.*

References

[1] Palotti J, Zuccon G, Hanbury A. The Influence of Pre-processing on the Estimation of Readability of Web Documents. In: Proceedings of the 24th ACM International on Conference on Information and Knowledge Management. CIKM '15. New York, NY, USA: ACM; 2015. p. 1763–1766. doi:10.1145/2806416.2806613.