	notion	Corr			SDoC			feature description
		pre-KS	post-KS	KG	pre-KS	post-KS	KG	
complexity	c_adj_avg	-0.287	-0.329	0.076	0.166	0.230	0.187	Ratio of the number of adjective to the total number of words
	c_aoa_avg	0.265	0.199	-0.157	0.227	0.177	0.245	Average age-of-acquisition rating of words in each web page \hline
	c_char_avg	-0.077	-0.084	0.024	0.180	0.187	0.193	Average number of characters per term
	c_fk_avg	-0.174	-0.203	0.043	0.236	0.155	0.284	Flesh-Kincaid Grad Readability Index
	c_gi_avg	-0.062	0.092	0.153	0.257	0.272	0.235	Gunning Fog Grade Readability Index
	c_noun_avg	-0.165	0.001	0.203	0.153	0.179	0.118	Ratio of the number of noun to the total number of words
	c_oth_avg	0.117	-0.007	-0.149	0.143	0.150	0.105	Ratio of the number of other words to the total number of words
	c_sentence_avg	-0.024	-0.006	0.024	0.230	0.181	0.257	Average number of words per sentence
	c_smog_avg	-0.041	0.088	0.124	0.230	0.248	0.202	SMOG Readability Index
	c_uniq_word_avg	0.015	0.164	0.118	0.202	0.178	0.229	Ratio of the number of unique words to the total number of words
	c_verb_avg	0.342	0.234	-0.222	0.188	0.235	0.199	Ratio of the number of verb to the total number of words
	c_word_avg	-0.191	-0.243	0.030	0.196	0.199	0.190	Number of words in each web page
HTML structure	h_img_avg	-0.187	-0.273	0.001	0.204	0.191	0.191	Number of <img> elements
	h_link_avg	-0.099	-0.240	-0.079	0.190	0.221	0.192	Number of outbound links
	h_nav_ul_avg	0.206	0.184	-0.098	0.249	0.172	0.238	Number of elements embedded in<nav> elements
	h_oth_ul_avg	-0.243	-0.305	0.043	0.218	0.148	0.187	Number of elements not in <nav> elements
	h_p_avg	-0.281	-0.230	0.151	0.205	0.255	0.238	Average length of each paragraph in <p> elements
	h_script_avg	0.165	0.067	-0.145	0.221	0.141	0.245	Number of <script> elements \hline
Linguistic	l_achieve_avg	0.058	-0.018	-0.087	0.195	0.184	0.276	Number of achievement words
	l_affect_avg	0.067	0.006	-0.078	0.217	0.257	0.203	Nmber of affect words
	l_affiliation_avg	0.278	0.200	-0.173	0.168	0.229	0.224	Number of affiliation words
	l_Analytic_avg	-0.469	-0.294	0.329	0.192	0.224	0.172	Number of analytic words
	l_anger_avg	-0.250	-0.151	0.179	0.172	0.210	0.090	Number of anger words
	l_anx_avg	0.411	0.292	-0.259	0.136	0.147	0.165	Number of anxiety words
	l_assent_avg	0.190	0.096	-0.152	0.265	0.145	0.306	Number of assent words
	l_Authentic_avg	-0.146	-0.190	0.020	0.246	0.272	0.216	Nmber of authentic words
	l_bio_avg	0.564	0.364	-0.386	0.238	0.207	0.281	Number of biological process words
	l_body_avg	0.469	0.336	-0.293	0.236	0.186	0.264	Number of body words
	l_cause_avg	0.317	0.117	-0.289	0.276	0.165	0.246	Number of causal words
	l_certain_avg	0.299	0.078	-0.300	0.246	0.197	0.244	Number of certainty words
	l_Clout_avg	0.370	0.286	-0.214	0.156	0.196	0.206	Nmber of clout words
	l_cogproc_avg	0.408	0.180	-0.349	0.219	0.123	0.242	Number of cognitive process words
	l_death_avg	-0.217	-0.128	0.159	0.198	0.197	0.239	Number of death words
	l_differ_avg	0.454	0.287	-0.315	0.169	0.160	0.194	Number of differentiation words
	l_discrep_avg	0.374	0.228	-0.268	0.194	0.225	0.159	Number of discrepancy words
	l_drives_avg	0.174	0.096	-0.133	0.178	0.169	0.216	Number of core drives and needs
	l_family_avg	0.247	0.144	-0.181	0.175	0.186	0.255	Number of family words
	l_feel_avg	0.056	-0.040	-0.102	0.232	0.208	0.223	Number of feeling words
	l_female_avg	0.197	0.140	-0.125	0.093	0.226	0.228	Numbe of female referents
	l_filler_avg	0.052	-0.040	-0.097	nan	nan	nan	Number of filters
	l_focusfuture_avg	0.184	0.163	-0.089	0.190	0.223	0.229	Number of future focus words
	l_focuspast_avg	-0.258	-0.256	0.101	0.288	0.243	0.211	Number of past focus words
	l_focuspresent_avg	0.514	0.302	-0.376	0.263	0.226	0.240	Number of present focus words
	l_friend_avg	0.283	0.196	-0.182	0.200	0.200	0.223	Number of friend words
	l_health_avg	0.556	0.351	-0.387	0.186	0.217	0.259	Number of health words
	l_hear_avg	-0.115	-0.080	0.074	0.212	0.218	0.203	Numbe of hearing words
	l_home_avg	-0.010	0.070	0.071	0.229	0.167	0.218	Number of home words
	l_informal_avg	0.162	0.068	-0.141	0.178	0.153	0.141	Number of informal speech words
	l_ingest_avg	0.170	0.215	-0.028	0.221	0.131	0.252	Number of ingesting words
	l_insight_avg	0.176	0.012	-0.205	0.177	0.189	0.227	Number of insightful words
	l_leisure_avg	0.045	0.074	0.008	0.257	0.214	0.232	Number of leisure words
	l_male_avg	-0.058	-0.035	0.041	0.205	0.171	0.221	Numbe of male referents
	l_money_avg	-0.156	-0.026	0.169	0.130	0.156	0.188	Number of money words
	l_motion_avg	0.106	0.036	-0.099	0.197	0.194	0.200	Number of motion words
	l_negemo_avg	-0.032	-0.035	0.010	0.184	0.233	0.149	Nmber of negative emotional words
	l_netspeak_avg	0.146	0.063	-0.127	0.179	0.141	0.124	Number of netspeak words
	l_nonflu_avg	0.195	0.129	-0.130	0.199	0.208	0.142	Number of nonfluencies
	l_percept_avg	-0.043	-0.039	0.020	0.240	0.172	0.316	Number of perceptual processes
	l_posemo_avg	0.197	0.061	-0.190	0.227	0.246	0.215	Nmber of positive emotion words
	l_power_avg	-0.181	-0.118	0.123	0.194	0.164	0.219	Number of power words
	l_relativ_avg	-0.264	-0.295	0.077	0.226	0.285	0.209	Number of relativity words
	l_relig_avg	-0.121	-0.190	-0.011	0.160	0.292	0.248	Number of religion words
	l_reward_avg	0.441	0.261	-0.321	0.248	0.155	0.217	Number of reward focus words
	l_risk_avg	0.455	0.274	-0.328	0.205	0.238	0.186	Number of risk words
	l_sad_avg	0.170	0.073	-0.146	0.238	0.221	0.269	Number of sadness words
	l_see_avg	-0.077	-0.057	0.047	0.176	0.180	0.280	Number of seeing words
	l_sexual_avg	0.444	0.233	-0.348	0.202	0.233	0.236	Number of sexual words
	l_social_avg	0.436	0.298	-0.285	0.152	0.175	0.201	Number of social words
	l_space_avg	-0.281	-0.262	0.125	0.188	0.269	0.279	Number of space words
	l_swear_avg	0.082	-0.009	-0.108	0.213	0.206	0.103	Number of swear words
	l_tentat_avg	0.431	0.259	-0.311	0.188	0.160	0.222	Number of tentative words
	l_time_avg	-0.190	-0.243	0.029	0.187	0.216	0.136	Number of time words
	l_Tone_avg	0.101	0.052	-0.080	0.212	0.264	0.162	Nmber of emotional tone words
	l_work_avg	-0.060	-0.036	0.044	0.236	0.129	0.229	Number of work words
	s_adj_avg	0.174	-0.016	-0.226	0.170	0.196	0.188	Number of adjectives
	s_adverb_avg	0.363	0.131	-0.335	0.239	0.200	0.220	Number of common adverbs
	s_AllPunc_avg	-0.201	-0.200	0.079	0.234	0.184	0.256	Number of punctuation

	Feature							Description
	s_Apostro_avg	0.219	0.055	-0.222	0.200	0.200	0.163	Number of apostrophes
	s_article_avg	-0.297	-0.294	0.118	0.187	0.170	0.174	Number of articles
	s_auxverb_avg	0.415	0.224	-0.321	0.231	0.199	0.186	Number of auxiliary verbs
	s_Colon_avg	-0.032	-0.126	-0.066	0.260	0.146	0.223	Number of colons
	s_Comma_avg	-0.086	0.053	0.149	0.212	0.186	0.170	Number of commas
	s_compare_avg	0.260	0.096	-0.238	0.189	0.185	0.239	Number of comparatives
	s_conj_avg	0.422	0.184	-0.362	0.208	0.182	0.182	Number of conjunctions
	s_Dash_avg	-0.143	-0.240	-0.026	0.223	0.178	0.256	Number of dashes
	s_Dic_avg	0.398	0.164	-0.349	0.213	0.197	0.243	Number of dictionary words
	s_Exclam_avg	0.014	-0.003	-0.019	0.221	0.168	0.238	Number of exclamation marks
	s_function_avg	0.285	0.087	-0.277	0.183	0.183	0.156	Number of function words
	s_i_avg	0.369	0.185	-0.297	0.169	0.222	0.234	Number of I pronouns
	s_interrog_avg	0.400	0.238	-0.291	0.226	0.251	0.217	Number of interrogatives
	s_ipron_avg	0.282	0.082	-0.277	0.256	0.241	0.196	Number of impersonal pronouns
	s_negate_avg	0.412	0.258	-0.288	0.200	0.182	0.242	Number of negations
	s_number_avg	-0.358	-0.227	0.248	0.240	0.238	0.246	Number of numbers
	s_OtherP_avg	-0.162	-0.133	0.087	0.209	0.179	0.185	Number of other punctuation
	s_Parenth_avg	-0.158	-0.171	0.051	0.188	0.165	0.235	Number of parentheses (pairs)
	s_Period_avg	-0.121	-0.184	-0.005	0.213	0.217	0.241	Number of periods
	s_ppron_avg	0.427	0.283	-0.286	0.206	0.216	0.222	Number of personal pronouns
	s_prep_avg	0.124	-0.033	-0.179	0.173	0.171	0.240	Number of prepositions
	s_pronoun_avg	0.410	0.232	-0.308	0.207	0.255	0.167	Number of total pronouns
	s_QMark_avg	0.398	0.213	-0.309	0.163	0.197	0.208	Number of question marks
	s_quant_avg	0.279	0.152	-0.214	0.196	0.203	0.149	Number of quantifiers
	s_Quote_avg	-0.339	-0.320	0.147	0.208	0.158	0.260	Number of quotation marks
	s_SemiC_avg	0.014	-0.047	-0.056	0.271	0.238	0.257	Number of semicolor
	s_shehe_avg	-0.099	-0.120	0.020	0.192	0.086	0.191	Number of she or he pronouns
	s_Sixltr_avg	-0.052	0.078	0.129	0.221	0.192	0.170	Number of words which have more then 6 letters
	s_they_avg	0.004	0.050	0.037	0.163	0.214	0.097	Number of they pronouns
	s_verb_avg	0.430	0.217	-0.345	0.235	0.201	0.206	Number of regular verbs
	s_we_avg	0.152	0.081	-0.118	0.162	0.239	0.238	Number of we pronouns
	s_you_avg	0.473	0.337	-0.297	0.155	0.247	0.201	Number of you pronouns
	b_distint_domain_num	0.166	0.042	-0.167	0.183	0.223	0.256	#domains
	b_num	0.067	0.028	-0.059	0.284	0.187	0.297	# total pages
	b_num_from_non_SERP	-0.066	-0.019	0.065	0.241	0.273	0.249	#document navigated from non-landing page
	b_num_from_SERP	0.111	0.030	-0.110	0.178	0.223	0.235	#document navigated from landing page
	b_num_per_q	-0.043	-0.038	0.020	0.249	0.209	0.256	# total pages / query
	b_pct_from_non_SERP	-0.081	0.018	0.114	0.219	0.242	0.230	%document from non-landing page
	b_pct_from_SERP	0.081	-0.018	-0.114	0.219	0.242	0.230	%document from landing page
	b_revisited_ratio	0.002	-0.043	-0.038	0.292	0.180	0.357	Ratio of revisited pages
	b_time_avg_per_page	-0.159	0.062	0.246	0.228	0.257	0.296	time active per query
	b_time_avg_per_q	-0.144	0.035	0.205	0.306	0.257	0.264	average active time
	b_time_max_per_page	-0.206	0.061	0.303	0.191	0.263	0.260	max active time
	b_time_total	-0.114	0.061	0.191	0.260	0.240	0.285	total active time on documents
	b_ttl_len_avg	0.397	0.281	-0.251	0.203	0.190	0.258	avg title len
	b_ttl_len_max	0.347	0.239	-0.225	0.168	0.191	0.258	max title len
	b_ttl_len_min	0.320	0.235	-0.195	0.247	0.222	0.183	min title len
	b_ttl_len_total	0.198	0.106	-0.154	0.205	0.247	0.259	total title len
	b_ttl_query_overlap_avg	-0.137	-0.024	0.147	0.149	0.202	0.187	avg query term appearance in title
	b_ttl_query_overlap_max	-0.145	-0.011	0.168	0.138	0.188	0.155	max query term appearance in title
	b_ttl_query_overlap_min	-0.062	-0.007	0.069				min query term appearance in title
	b_ttl_query_overlap_total	-0.070	0.012	0.095	0.135	0.194	0.193	total query term appearance in title
	b_uniq_num	0.085	0.064	-0.051	0.266	0.198	0.236	# unique pages
	b_uniq_num_per_q	-0.043	-0.038	0.020	0.249	0.209	0.256	# unique pages / query
	b_url_q_overlap_avg	-0.054	0.042	0.101	0.183	0.195	0.237	avg query term appearance in url
	b_url_q_overlap_max	-0.092	0.029	0.137	0.137	0.239	0.203	max query term appearance in url
	b_url_q_overlap_min	0.063	0.083	-0.008				min query term appearance in url
	b_url_q_overlap_total	-0.023	0.053	0.072	0.133	0.242	0.186	total query term appearance in url
	m_num	0.031	0.158	0.094	0.245	0.182	0.311	TotalMouseovers*: total number of mouseovers in the session.
	m_num_per_q	-0.035	0.130	0.152	0.247	0.218	0.264	AvgMouseovers: average number of mouseovers per query.
	m_rank_max	-0.027	0.110	0.126	0.194	0.187	0.315	MaxMouseover*: max mouseover rank in the session.
	m_rank_max_per_q	-0.056	0.110	0.160	0.216	0.199	0.270	AvgMaxMouseover: average max mouseover rank per query.
	m_scroll_dist	-0.030	-0.011	0.028	0.278	0.220	0.353	TotalScrollDistance*: total scroll distance in session.
	m_scroll_dist_per_q	-0.044	-0.032	0.027	0.230	0.245	0.252	AvgScrollDistance: average scroll distance per query.
	m_scroll_max_pos	-0.074	-0.009	0.083	0.169	0.221	0.313	MaxScrollPosition*: max scroll position in session.
	m_scroll_max_pos_per_q	-0.076	-0.015	0.080	0.186	0.198	0.246	AvgMaxScrollPosition: average max scroll position per query.
	q_complexity_amax_diff	0.036	0.031	-0.018				max complexity diff
	q_complexity_avg	0.017	0.033	0.006	0.170	0.257	0.238	avg compexity
	q_complexity_max	0.085	0.100	-0.021	0.162	0.223	0.215	max complexity
	q_complexity_min	0.080	0.097	-0.017	0.166	0.209	0.133	min complexity
	q_len_first	0.033	0.002	-0.039	0.180	0.298	0.197	first query length
	q_len_las	0.152	0.080	-0.120	0.209	0.206	0.169	last query length
	q_num	0.067	0.058	-0.033	0.255	0.225	0.217	#query
	q_term_avg	0.122	0.076	-0.086	0.231	0.254	0.223	mean query length
	q_term_max	0.085	0.057	-0.057	0.289	0.233	0.242	max query length
	q_term_min	0.126	0.077	-0.090	0.135	0.195	0.191	min query length
	q_term_total	0.050	0.044	-0.025	0.281	0.164	0.235	total query length
	q_uniq_term_avg	0.123	0.087	-0.078	0.206	0.215	0.173	avg uniq terms per query
	q_uniq_term_first	0.023	0.019	-0.012	0.179	0.283	0.184	first query uniq terms

User behavior features

q_uniq_term_last	0.173	0.094	-0.133	0.186	0.216	0.165	last query uniq terms
q_uniq_term_max	0.090	0.079	-0.044	0.283	0.216	0.212	max uniq terms
q_uniq_term_min	0.132	0.082	-0.093	0.139	0.186	0.197	min uniq terms
q_uniq_term_ratio	-0.185	-0.085	0.154	0.292	0.304	0.234	uniq term ratio
q_uniq_term_total	0.051	0.046	-0.024	0.284	0.213	0.228	#uniq terms
s_duration	0.113	0.087	-0.066	0.380	0.262	0.351	session duration
s_duration_per_q	0.113	0.087	-0.065	0.312	0.234	0.288	session_len_per_query
SERP_avg_time_to_first_click	-0.034	-0.055	-0.004	0.287	0.229	0.295	avg time to first click
SERP_click	0.119	0.037	-0.115	0.148	0.274	0.189	total click
SERP_click_interval	0.118	0.012	-0.134	0.148	0.200	0.178	average click per query
SERP_click_per_query	0.026	-0.042	-0.067	0.166	0.267	0.151	average click interval
SERP_click_rank_avg	0.071	0.024	-0.067	0.286	0.189	0.280	mean ranking
SERP_click_rank_highest	-0.013	0.090	0.091				highest ranking
SERP_click_rank_lowest	0.107	-0.012	-0.141	0.199	0.184	0.196	lowest ranking
SERP_no_click_query_num	0.046	0.037	-0.026	0.264	0.248	0.231	queries with no click
SERP_no_click_query_pct	0.071	0.016	-0.073	0.265	0.217	0.234	ratio of queries with no click
SERP_time_avg	-0.028	0.010	0.043	0.264	0.268	0.255	average time active on landing page
SERP_time_max	0.016	-0.007	-0.026	0.229	0.250	0.199	max time active on landing page
SERP_time_total	0.052	0.023	-0.045	0.262	0.220	0.222	total active time on landing page