Table 1: Results using the k-Means clustering, k=8

				avg.support						
dataset	measure	%	recall -	1	2	3	4	5	6	
	E. J.C.I.	2%	0.001	0.0	2.39	3.24	2.91	1.93	1.91	
WN18	Euclid.	5%	0.0004	0.0	2.39	3.17	2.85	1.89	1.86	
WNIO	cos	2%	0.0028	1.00	4.10	2.12	2.00	1.84	1.81	
		5%	0.0011	1.00	4.10	2.10	1.98	1.83	1.79	
	Euclid.	2%	0.0021	1.32	1.22	3.27	1.38	1.60	2.54	
	Luciia.	5%	0.0021	1.32	1.22	3.27	1.38	1.60	2.54	
DBpedia15k	cos	2%	0.0019	1.24	1.17	3.13	1.38	1.62	2.62	
DDpediatok	COS	5%	0.0009	1.24	1.17	3.08	1.38	1.61	2.52	
	acos	2%	0.0019	1.39	1.21	3.61	1.53	1.93	2.69	
	acos	5%	0.0009	1.38	1.21	3.61	1.53	1.91	2.57	
	Euclid.	2%	0.0594	16.69	5.98	206.59	377.97	185.39	210.45	
FB15k	Luciiu.	5%	0.0340	15.14	5.81	193.41	366.44	1.93 1.89 1.84 1.83 1.60 1.62 1.61 1.93 1.91 185.39 2 172.41 185.38	187.08	
I DIOK	cos	2%	0.0593	16.69	5.98	206.59	377.97		210.45	
	cos	5%	0.0339	15.14	5.82	193.41	366.44	172.42	187.08	

Table 2: Results using the k-Means clustering, k=10

							0; **				
dataset	measure	%	recall	avg.support							
dataset	measure	/0	recan	1	2	3	4	5	6		
	Euclid.	2%	0.0023	0.0	4.29	3.39	3.03	1.97	1.93		
WN18	Euclia.	5%	0.0009	0.0	4.29	3.33	2.98	1.89	1.87		
VV 1V10	cos	2%	0.0026	0.0	4.11	2.30	2.13	1.77	1.77		
	COS	5%	0.0010	0.0	4.11	2.28	2.11	1.73	1.73		
	Euclid.	2%	0.0020	1.36	1.16	3.46	1.47	1.85	2.40		
	Euclia.	5%	0.0019	1.36	1.16	3.45	1.47	1.97 1.1 1.89 1.3 1.77 1.7 1.73 1.1 1.85 2.1 1.85 2.1 1.91 2.1 1.89 2.1 1.89 2.1 1.80 2	2.40		
DBpedia15k	cos	2%	0.0019	1.37	1.16	3.27	1.51	1.91	2.39		
рърешатък	COS	5%	0.0009	1.36	1.16	3.21	1.51	1.89	2.31		
	2505	2%	0.0018	1.38	1.17	3.23	1.51	1.90	2.42		
	acos	5%	0.0009	1.38	1.17	3.17	1.50	1.88	2.33		
	Euclid.	2%	0.0588	16.84	6.10	209.89	379.13	186.64	206.64		
FB15k	Luciia.	5%	0.0335	16.65	5.92	197.70	367.82	173.67	182.19		
r D19k		2%	0.0664	18.91	7.62	205.58	283.29	201.48	189.72		
	cos	5%	0.0389	18.60	7.31	183.45	251.09	179.04	159.88		

Table 3: Results using the k-MEANS clustering, k = 15

Table 5. Results using the K-MEANS clustering, N = 15											
dataset	measure	%	recall	avg.support							
	modbaro	, 0	100411	1	2	3	4	5	6		
	Euclid.	2%	0.0010	1.0	2.44	3.36	3.04	2.08	2.05		
WN18	Luciia.	5%	0.0004	1.0	2.44	3.30	2.99	2.04	2.01		
VV 1V10		2%	0.0012	1.0	2.45	2.89	2.16	2.01	2.02		
	cos	5%	0.0005	1.0	2.45	2.28	2.15	1.97	1.98		
	Euclid.	2%	0.0019	1.38	1.18	3.33	1.45	1.91	2.38		
	Luciia.	5%	0.0019	1.38	1.18	3.33	1.45	5 6 2.08 2.0 2.04 2.0 2.01 2.0 1.97 1.9 1.91 2.0 2.01 2.0 2.01 2.0 2.01 2.01 2.01 2.01 2.04 2.01 2.08 2.01 2.09 2.00 1.91 2.00 1.92 2.00 1.93 1.93 1.93 1.93 1.93 1.93 1.93 1.93	2.38		
DD= adia 151-		2%	0.0018	1.41	1.22	3.26	1.49	2.01	2.45		
DBpedia15k	cos	5%	0.0018	1.41	1.22	3.26	1.49	2.01	2.45		
		2%	0.0017	1.43	1.23	3.18	1.49	2.04	2.47		
	acos	5%	0.0009	1.38	1.21	3.61	1.53	1.91	2.57		
	Euclid.	2%	0.0581	15.05	5.06	191.78	343.27	171.98	183.37		
FB15k	Euclia.	5%	0.0332	13.88	4.65	179.41	334.69	160.08	162.97		
I DIOK		2%	0.0659	17.52	6.50	196.28	274.44	188.76	179.53		
	cos	5%	0.0389	16.02	5.73	173.88	242.66	167.76	151.99		

Table 4: Results (explanation) with clusters by Agglomerative Clustering, k=8 clusters

clid. 29	% 0.002	$\frac{1}{25}$ 1.0	2 4.34	3 2.99	3.83	5	6
clid. 2%	% 0.002	$\frac{1}{25}$ 1.0				-	
clid. 5%			4.34	2.00	202		
5%	% 0.001			2.33	۷.83	2.07	2.05
20		1.0	4.24	2.99	2.71	1.93	1.90
	% 0.002	24 1.0	4.34	3.07	2.83	2.02	2.00
os 5%	% 0.003	1.0	4.22	2.21	2.14	1.95	1.98
29	% 0.002	22 1.35	1.21	2.97	1.48	1.85	2.55
59 tild.	% 0.003	1.34	1.22	2.93	1.47	1.84	2.45
29	% 0.003	1.19	1.13	3.02	1.30	1.57	2.44
.05 59	% 0.003	1.34	1.16	3.08	1.51	2.02 1.95 1.85 1.84 1.57 1.92 1.94 1.90 5 187.45 175.09	2.56
29	$\sqrt{6}$ 0.002	20 1.35	1.18	2.96	1.51	1.94	2.69
59	% 0.000	9 1.38	1.21	3.61	1.53	1.90	2.57
29	% 0.06	6 - 16.70	6.01	209.49	378.15	187.45	209.97
ciia. 5%	% 0.034	11 15.36	5.82	197.82	369.80	175.09	187.34
29	% 0.067	73 19.00	7.72	208.29	285.20	209.48	195.38
os 5%	% 0.039	96 17.03	7.45	184.77	253.18	186.15	165.93
	clid. 29 cos 29 cos 59 clid. 29 cos 59 clid. 29 cos 29	5% 0.001 2% 0.002 5% 0.001 5% 0.001 5% 0.002 5% 0.002 5% 0.002 5% 0.002 cos 5% 0.002 clid. 2% 0.06 5% 0.032	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	5%         0.0011         1.0         4.22         2.21           clid.         2%         0.0022         1.35         1.21         2.97           5%         0.0010         1.34         1.22         2.93           os         2%         0.0019         1.19         1.13         3.02           5%         0.0010         1.34         1.16         3.08           cos         2%         0.0020         1.35         1.18         2.96           5%         0.0009         1.38         1.21         3.61           clid.         2%         0.06         16.70         6.01         209.49           5%         0.0341         15.36         5.82         197.82           2%         0.0673         19.00         7.72         208.29	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	5%         0.0011         1.0         4.22         2.21         2.14         1.95           clid.         2%         0.0022         1.35         1.21         2.97         1.48         1.85           5%         0.0010         1.34         1.22         2.93         1.47         1.84           os         2%         0.0019         1.19         1.13         3.02         1.30         1.57           5%         0.0010         1.34         1.16         3.08         1.51         1.92           2%         0.0020         1.35         1.18         2.96         1.51         1.94           cos         5%         0.0009         1.38         1.21         3.61         1.53         1.90           clid.         2%         0.06         16.70         6.01         209.49         378.15         187.45           5%         0.0341         15.36         5.82         197.82         369.80         175.09           2%         0.0673         19.00         7.72         208.29         285.20         209.48

Table 5: Results (explanation) with clusters by Agglomerative Clustering, k=10

crusters										
dataset	measure	%	recall	avg.support						
uataset	measure		recan	1	2	3	4	5	6	
	Euclid.	2%	0.0025	1.00	4.29	2.31	2.30	2.08	2.05	
WN18	Euclia.	5%	0.0010	1.00	4.29	2.26	2.23	2.02	2.05	
WNIO		2%	0.0027	1.00	4.22		1.97	2.00		
	cos	5%	0.0011	1.00	4.22	2.16	2.10	1.93	1.96	
	Euclid.	2%	0.0023	1.33	1.21	2.89	1.45	1.86	2.61	
	Euclia.	5%	0.0011	1.33	1.21	2.86	1.44	2.02 2. 1.97 2. 1.93 1. 1.86 2. 1.84 2. 1.55 2. 1.92 2. 1.89 2.	2.52	
DBpedia15k	505	2%	0.0019	1.19	1.25	3.02	1.29	1.56	2.44	
рърешатък	cos	5%	0.0009	1.19	1.12	2.97	1.28	5 0 2.08 3 2.02 3 1.97 0 1.93 6 1.86 4 1.84 0 1.56 3 1.55 3 1.92 8 1.89 76 188.33 74 175.18	2.35	
		2%	0.0019	1.38	1.21	3.61	1.53		2.69	
	acos	5%	0.0009	1.37	1.21	3.61	1.53	1.89	2.57	
	Euclid.	2%	0.0599	16.79	6.01	211.22	379.76	188.33	210.39	
FB15k	Eucila.	5%	0.0341	15.49	5.84	198.01	370.54	175.18	187.41	
гызк		2%	0.0674	19.04	.33 1.21 2.89 .33 1.21 2.86 .19 1.25 3.02 .19 1.12 2.97 .38 1.21 3.61 .37 1.21 3.61 .6.79 6.01 211.22 .5.49 5.84 198.01 .9.04 7.72 208.39	208.39	285.69	209.59	195.57	
	cos	5%	0.0396	17.06	7.45	184.81	253.52	2.30         2.08           2.23         2.02           2.13         1.97           2.10         1.93           1.45         1.86           1.44         1.84           1.29         1.56           1.28         1.55           1.53         1.92           1.53         1.89           379.76         188.33           370.54         175.18           285.69         209.59	166.07	

Table 6: Results (explanation) with clusters by Agglomerative Clustering,

k=15 clus	sters										
dataset	measure	%	recall	avg.support							
uataset	measure			1	2	3	4	5	6		
WN18 -	Euclid.	2%	0.0024	1.00	4.30	2.31	2.30	2.09	2.07		
	Euclia.	5%	0.0010	1.00	4.30	2.26	2.23	2.03	9 2.07 13 2.01 15 1.98 11 1.94 16 2.62 14 2.52 13 2.66 15 2.35 17 2.68 2.57 2.68 2.57 33 188.33 15 187.39 75 195.67		
WINIO		$^{2\%}$	0.0026	1.00	4.27	2.15	2.08	1.95	1.98		
	cos	5%	0.0011	1.00	4.27	2.12	2.05	1.91	1.94		
	Euclid.	2%	0.0023	1.33	1.21	2.89	1.44	1.86	2.62		
	Euclia.	5%	0.0011	1.33	1.21	2.86	1.44	2.09 2.0 2.03 2.0 1.95 1.5 1.91 1.5 1.86 2.6 1.84 2.5 1.93 2.6 1.55 2.3 1.67 2.6 1.65 2.5 188.33 188 175.15 187 209.75 195	2.52		
DBpedia15k		$^{2\%}$	0.0020	1.51	1.17	3.09	1.51	1.93	2.66		
рърешатък	cos	5%	0.0009	1.19	1.12	2.97	1.28	1.93 1.55	2.35		
•		2%	0.0019	1.16	1.13	3.52	1.36	1.67	2.68		
	acos	5%	0.0009	1.15	1.13	3.53	1.36	1.65	2.57		
	Euclid.	2%	0.0599	16.79	6.01	211.28	379.84	188.33	188.33		
FB15k	Euclia.	5%	0.0342	15.50	5.84	198.06	370.63	175.15	$\begin{array}{cccc} .09 & 2.07 \\ .03 & 2.01 \\ .95 & 1.98 \\ .91 & 1.94 \\ .86 & 2.62 \\ .84 & 2.52 \\ .93 & 2.66 \\ .55 & 2.35 \\ .67 & 2.68 \\ .65 & 2.57 \\ .833 & 188.33 \\ 5.15 & 187.39 \\ 9.75 & 195.67 \end{array}$		
LDIOK	cos	2%	0.0672	19.10	7.73	208.42	285.76	209.75	195.67		
	COS	5%	0.0396	17.14	7.46	184.72	253.51	186.26	166.12		