

Socio-technical analysis result ( Python )

	range.date		devs	ml.only.devs	code.only.devs	ml.code.devs	perc.ml.only.devs	perc.code.only.devs	perc.ml.code.devs	sponsored.devs	ratio.sponsored	sponsored.core.devs	ratio.sponsored.core	num.tz	core.global.devs	core.mail.devs	core.code.devs	org.silo	prima.donnas	radio.silence	black.cloud	missing.links	st.congruence	communicability	global.turnover	code.turnover
1	2013-06 – 2013-09		137	95	6	36	0.6934	0.0438	0.2628	2	0.0146	0	0.0000	1	56	56	10	1	0	45	0	9	0.7500	0.9742	0.0000	0.0000
2	2013-09 – 2013-12		167	122	6	39	0.7305	0.0359	0.2335	3	0.0180	1	0.0222	1	67	67	13	1	0	66	0	8	0.6522	0.9768	0.3553	0.2299
3	2013-12 – 2014-03		174	131	8	35	0.7529	0.0460	0.2011	2	0.0115	0	0.0000	1	70	70	8	1	0	64	0	1	0.9545	0.9884	0.3988	0.2045
4	2014-03 – 2014-06		178	115	17	46	0.6461	0.0955	0.2584	1	0.0056	0	0.0000	1	68	68	10	1	0	49	0	3	0.8235	0.9888	0.4148	0.0189
5	2014-06 – 2014-08		142	113	5	24	0.7958	0.0352	0.1690	2	0.0141	0	0.0000	1	64	64	8	3	0	29	0	8	0.3846	0.9284	0.4938	0.7826
6	2014-08 – 2014-11		140	111	5	24	0.7929	0.0357	0.1714	1	0.0071	0	0.0000	1	61	61	7	3	0	49	0	7	0.6500	0.9534	0.3901	0.2759
7	2014-11 – 2015-02		156	109	13	34	0.6987	0.0833	0.2179	0	0.0000	0	0.0000	1	57	57	8	5	0	38	0	14	0.5172	0.9112	0.3716	0.0789
8	2015-02 – 2015-05		180	142	5	33	0.7889	0.0278	0.1833	5	0.0278	0	0.0000	1	68	68	13	6	0	46	0	42	0.5532	0.8651	0.4048	0.3529
9	2015-05 – 2015-08		144	120	5	19	0.8333	0.0347	0.1319	1	0.0069	0	0.0000	1	63	63	3	0	0	44	0	0	1.0000	1.0000	0.5802	0.6129
10	2015-08 – 2015-11		135	111	7	17	0.8222	0.0519	0.1259	3	0.0222	0	0.0000	1	55	55	6	2	0	35	0	3	0.5714	0.9405	0.5233	0.4583
11	2015-11 – 2016-02		174	117	24	33	0.6724	0.1379	0.1897	0	0.0000	0	0.0000	1	56	56	7	3	0	53	0	5	0.5833	0.9561	0.3301	0.0000
12	2016-02 – 2016-05		145	112	8	25	0.7724	0.0552	0.1724	4	0.0276	0	0.0000	1	58	58	7	0	2	80	0	5	0.5833	0.9520	0.5078	0.5778
	core.global.turnover	core.mail.turnover	core.code.turnover	ratio.smelly.quitters	ratio.smelly.devs	global.truck	mail.truck	code.truck	closeness.centr	betweenness.centr	degree.centr		global.mod	mail.mod	code.mod	density	mail.only.core.devs	code.only.core.devs	ml.code.core.devs	ratio.mail.only.core	ratio.code.only.core	ratio.ml.code.core				
1	0.0000	0.0000	0.0000	0.0000	0.3723	0.5912	0.5725	0.7619	0.0396	0.1141	0.4979	0.1932	0.1262	0.4408	0.1565	47	1	9	0.8246	0.0175	0.1579					
2	0.2927	0.2927	0.5217	0.3704	0.4371	0.5988	0.5839	0.7111	0.0398	0.0843	0.5401	0.0812	0.0645	0.1602	0.1587	56	2	11	0.8116	0.0290	0.1594					
3	0.3358	0.3358	0.7619	0.4118	0.3736	0.5977	0.5783	0.8140	0.0269	0.0926	0.5602	0.0988	0.0922	0.4128	0.1681	63	1	7	0.8873	0.0141	0.0986					
4	0.4493	0.4493	0.2222	0.4384	0.2921	0.6180	0.5776	0.8413	0.0134	0.0847	0.5448	0.0873	0.0906	0.4937	0.1445	59	1	9	0.8551	0.0145	0.1304					
5	0.2879	0.2879	0.5556	0.3291	0.2535	0.5493	0.5328	0.7241	0.1205	0.1428	0.6082	0.1972	0.1998	0.5211	0.1932	58	2	6	0.8788	0.0303	0.0909					
6	0.3840	0.3840	0.5333	0.2182	0.3929	0.5643	0.5481	0.7586	0.0754	0.1139	0.5666	0.1518	0.1595	0.3722	0.1528	54	0	7	0.8852	0.0000	0.1148					
7	0.4068	0.4068	0.2667	0.3273	0.2756	0.6346	0.6014	0.8298	0.0182	0.1003	0.4861	0.1963	0.1836	0.1940	0.1397	51	2	6	0.8644	0.0339	0.1017					
8	0.4000	0.4000	0.1905	0.3088	0.3333	0.6222	0.6114	0.6579	0.0714	0.1170	0.4944	0.3646	0.2298	0.2454	0.1425	58	3	10	0.8169	0.0423	0.1408					
9	0.4580	0.4275	1.2500	0.2872	0.3056	0.5625	0.5468	0.8750	0.0281	0.0918	0.5180	0.2945	0.2702	0.4990	0.1953	60	0	3	0.9524	0.0000	0.0476					
10	0.5254	0.5254	0.4444	0.3014	0.2815	0.5926	0.5703	0.7500	0.0375	0.1145	0.3930	0.1950	0.1999	0.2381	0.1219	50	1	5	0.8929	0.0179	0.0893					
11	0.3604	0.3604	0.6154	0.2941	0.3276	0.6782	0.6267	0.8772	0.0111	0.1128	0.4168	0.1259	0.1276	0.2643	0.0919	50	1	6	0.8772	0.0175	0.1053					
12	0.3860	0.4035	0.5714	0.3580	0.5586	0.6000	0.5766	0.7879	0.0249	0.1803	0.5160	0.0869	0.0695	0.4627	0.1507	53	2	5	0.8833	0.0333	0.0833					

Community smells: Pearson’s correlation ( Python )

	devs	ml.only.devs	code.only.devs	ml.code.devs	perc.ml.only.devs	perc.code.only.devs	perc.ml.code.devs	sponsored.devs	ratio.sponsored	sponsored.core.devs	ratio.sponsored.core	num.tz	core.global.devs	core.mail.devs	core.code.devs	org.silo	prima.donnas	radio.silence	black.cloud	missing.links	st.congruence	communicability	global.turnover	code.turnover
org.silo	0.27	0.31	0.09	0.06	-0.02	0.08	-0.04	0.03	-0.06	-0.19	-0.19	-	-0.02	-0.02	0.34	-	-0.36	-0.48	-	0.78	-0.61	-0.89	-0.45	-0.22
prima.donnas	-0.20	-0.12	-0.06	-0.20	0.12	-0.02	-0.15	0.41	0.48	-0.09	-0.09	-	-0.23	-0.23	-0.15	-0.36	-	0.66	-	-0.11	-0.15	-0.01	0.31	0.32
radio.silence	0.30	0.21	0.07	0.27	-0.16	0.04	0.20	0.31	0.29	0.36	0.36	-	0.20	0.20	0.17	-0.48	0.66	-	-	-0.16	0.28	0.33	-0.20	-0.18
black.cloud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
missing.links	0.35	0.50	-0.20	0.17	0.07	-0.24	0.08	0.52	0.41	-0.02	-0.02	-	0.21	0.21	0.62	0.78	-0.11	-0.16	-	-	-0.41	-0.85	-0.27	-0.03
	core.global.turnover	core.mail.turnover	core.code.turnover	ratio.smelly.quitters	ratio.smelly.devs	global.truck	mail.truck	code.truck	closeness.centr	betweenness.centr	degree.centr	global.mod	mail.mod	code.mod	density	mail.only.core.devs	code.only.core.devs	ml.code.core.devs	ratio.mail.only.core	ratio.code.only.core	ratio.ml.code.core			
org.silo	-0.06	-0.04	-0.61	-0.37	-0.43	0.34	0.43	-0.38	0.36	-0.01	-0.16	0.52	0.43	-0.52	-0.33	-0.14	0.50	0.23	-0.35	0.49	0.22			
prima.donnas	-0.02	0.07	0.04	0.14	0.77	-0.01	-0.01	0.03	-0.17	0.79	0.02	-0.31	-0.39	0.25	-0.01	-0.12	0.24	-0.27	0.11	0.30	-0.26			
radio.silence	-0.29	-0.23	0.13	0.37	0.90	0.21	0.26	0.08	-0.43	0.21	0.11	-0.57	-0.74	-0.01	-0.09	0.14	0.09	0.17	-0.13	0.08	0.12			
black.cloud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
missing.links	-0.07	-0.05	-0.55	-0.17	-0.07	0.24	0.44	-0.64	0.34	0.09	-0.07	0.65	0.33	-0.40	-0.14	0.00	0.71	0.49	-0.58	0.65	0.43			

# Community smells: Pearson's correlation - p-values ( Python )

	devs	ml.only.devs	code.only.devs	ml.code.devs	perc.ml.only.devs	perc.code.only.devs	perc.ml.code.devs	sponsored.devs	ratio.sponsored	sponsored.core.devs	ratio.sponsored.core	num.tz	core.global.devs	core.mail.devs	core.code.devs	org.silo	prima.donnas	radio.silence	black.cloud	missing.links	st.congruence	communicability	global.turnover	code.turnover
org.silo	0.40	0.33	0.77	0.86	0.96	0.80	0.91	0.92	0.85	0.55	0.55	-	0.94	0.94	0.28	-	0.25	0.12	-	0.00	0.04	0.00	0.17	0.51
prima.donnas	0.54	0.71	0.86	0.54	0.72	0.96	0.65	0.19	0.11	0.78	0.78	-	0.48	0.48	0.65	0.25	-	0.02	-	0.74	0.65	0.98	0.36	0.33
radio.silence	0.34	0.50	0.82	0.40	0.61	0.90	0.54	0.33	0.36	0.26	0.26	-	0.53	0.53	0.59	0.12	0.02	-	-	0.62	0.37	0.29	0.55	0.60
black.cloud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
missing.links	0.26	0.10	0.54	0.60	0.82	0.45	0.81	0.08	0.19	0.95	0.95	-	0.51	0.51	0.03	0.00	0.74	0.62	-	-	0.18	0.00	0.42	0.93

	core.global.turnover	core.mail.turnover	core.code.turnover	ratio.smelly.quitters	ratio.smelly.devs	global.truck	mail.truck	code.truck	closeness.cent	betweenness.cent	degree.cent	global.mod	mail.mod	code.mod	density	mail.only.core.devs	code.only.core.devs	ml.code.core.devs	ratio.mail.only.core	ratio.code.only.core	ratio.ml.code.core
org.silo	0.86	0.91	0.05	0.26	0.16	0.27	0.16	0.22	0.26	0.97	0.61	0.08	0.16	0.08	0.29	0.67	0.10	0.48	0.26	0.11	0.49
prima.donnas	0.96	0.83	0.92	0.67	0.00	0.98	0.98	0.94	0.60	0.00	0.95	0.33	0.21	0.43	0.98	0.70	0.46	0.40	0.72	0.35	0.42
radio.silence	0.38	0.49	0.70	0.27	0.00	0.52	0.42	0.79	0.16	0.51	0.73	0.05	0.01	0.98	0.78	0.66	0.78	0.59	0.69	0.80	0.71
black.cloud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
missing.links	0.84	0.89	0.08	0.61	0.82	0.46	0.15	0.02	0.27	0.77	0.84	0.02	0.30	0.20	0.67	0.99	0.01	0.11	0.05	0.02	0.17

Community smells: Spearman’s correlation ( Python )

	devs	ml.only.devs	code.only.devs	ml.code.devs	perc.ml.only.devs	perc.code.only.devs	perc.ml.code.devs	sponsored.devs	ratio.sponsored	sponsored.code.devs	ratio.sponsored.code	num.tz	core.global.devs	core.mail.devs	core.code.devs	org.silo	prima.donnas	radio.silence	black.cloud	missing.links	st.congruence	communicability	global.turnover	code.turnover
org.silo	0.17	-0.05	-0.08	-0.09	-0.04	-0.08	-0.06	-0.16	-0.11	-0.18	-0.18	-	-0.08	-0.08	0.24	-	-0.45	-0.40	-	0.64	-0.74	-0.75	-0.46	-0.23
prima.donnas	-0.04	-0.13	0.18	-0.13	0.04	0.22	-0.13	0.40	0.39	-0.09	-0.09	-	-0.13	-0.13	-0.22	-0.45	-	0.48	-	-0.09	-0.09	-0.13	0.30	0.30
radio.silence	0.47	0.39	0.35	0.46	-0.42	0.28	0.38	0.19	0.12	0.39	0.39	-	0.31	0.31	0.19	-0.40	0.48	-	-	-0.17	0.42	0.37	-0.38	-0.36
black.cloud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
missing.links	0.06	-0.22	-0.22	0.25	-0.22	-0.22	0.34	0.18	0.24	0.18	0.18	-	-0.09	-0.09	0.63	0.64	-0.09	-0.17	-	-	-0.63	-0.69	-0.47	-0.03
		core.global.turnover	core.mail.turnover	core.code.turnover	ratio.smelly.quitters	ratio.smelly.devs	global.truck	mail.truck	code.truck	closeness.centr	betweenness.centr	degree.centr	global.mod	mail.mod	code.mod	density	mail.only.core.devs	code.only.core.devs	ml.code.core.devs	ratio.mail.only.core	ratio.code.only.core		ratio.ml.code.core	
org.silo	-0.12	-0.19	-0.54	-0.32	-0.41	0.32	0.36	-0.32	0.24	0.27	-0.22	0.49	0.43	-0.45	-0.50	-0.23	0.36	0.24	-0.30	0.44	0.30			
prima.donnas	0.00	0.10	0.20	0.20	0.48	0.13	-0.04	0.04	-0.22	0.48	-0.04	-0.39	-0.39	0.22	-0.04	-0.13	0.28	-0.35	0.13	0.31	-0.39			
radio.silence	-0.35	-0.27	0.26	0.36	0.85	0.39	0.46	0.12	-0.31	-0.24	0.15	-0.81	-0.78	-0.15	-0.01	0.13	0.05	0.32	-0.21	-0.12	0.26			
black.cloud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
missing.links	-0.34	-0.37	-0.60	-0.03	-0.02	0.25	0.33	-0.55	0.40	0.33	-0.16	0.26	0.05	-0.40	-0.22	-0.40	0.67	0.51	-0.74	0.70	0.59			

# Community smells: Spearman's correlation - p-values ( Python )

	devs	ml.only.devs	code.only.devs	ml.code.devs	perc.ml.only.devs	perc.code.only.devs	perc.ml.code.devs	sponsored.devs	ratio.sponsored	sponsored.core.devs	ratio.sponsored.core	num.tz	core.global.devs	core.mail.devs	core.code.devs	org.silo	prima.donnas	radio.silence	black.cloud	missing.links	st.congruence	communicability	global.turnover	code.turnover
org.silo	0.60	0.87	0.80	0.77	0.91	0.81	0.86	0.63	0.73	0.58	0.58	-	0.82	0.82	0.45	-	0.14	0.20	-	0.02	0.01	0.00	0.15	0.50
prima.donnas	0.89	0.68	0.58	0.68	0.89	0.50	0.68	0.20	0.21	0.78	0.78	-	0.68	0.68	0.49	0.14	-	0.11	-	0.79	0.79	0.68	0.37	0.37
radio.silence	0.12	0.21	0.27	0.13	0.17	0.38	0.22	0.56	0.71	0.21	0.21	-	0.33	0.33	0.55	0.20	0.11	-	-	0.59	0.17	0.23	0.25	0.27
black.cloud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
missing.links	0.86	0.49	0.48	0.43	0.50	0.50	0.28	0.57	0.44	0.59	0.59	-	0.78	0.78	0.03	0.02	0.79	0.59	-	-	0.03	0.01	0.14	0.94
	core.global.turnover	core.mail.turnover	core.code.turnover	ratio.smelly.quitters	ratio.smelly.devs	global.truck	mail.truck	code.truck	closeness.cent	betweenness.cent	degree.cent	global.mod	mail.mod	code.mod	density	mail.only.core.devs	code.only.core.devs	ml.code.core.devs	ratio.mail.only.core	ratio.code.only.core	ratio.ml.code.core			
org.silo	0.72	0.58	0.08	0.34	0.18	0.31	0.26	0.32	0.44	0.40	0.49	0.11	0.16	0.15	0.10	0.48	0.25	0.45	0.34	0.16	0.34			
prima.donnas	1.00	0.77	0.56	0.56	0.11	0.68	0.89	0.89	0.50	0.11	0.89	0.21	0.21	0.50	0.89	0.68	0.38	0.26	0.68	0.33	0.21			
radio.silence	0.30	0.42	0.43	0.27	0.00	0.21	0.14	0.70	0.32	0.45	0.65	0.00	0.00	0.65	0.98	0.70	0.89	0.31	0.52	0.72	0.42			
black.cloud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
missing.links	0.30	0.26	0.05	0.94	0.96	0.43	0.30	0.06	0.20	0.29	0.62	0.41	0.89	0.20	0.48	0.19	0.02	0.09	0.01	0.01	0.04			