

Socio-technical analysis result (Arduino)

	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	65	50	10	5	0.7692	0.1538	0.0769	6	0.0923	0	0.0000	1	25	24	3	3	0	2	0	3	0.0000	0.8222	0.0000	0.0000
2	2013-09 – 2013-11	63	48	12	3	0.7619	0.1905	0.0476	5	0.0794	0	0.0000	1	20	20	2	1	0	25	0	2	0.5000	0.8833	0.6250	0.5333
3	2013-11 – 2014-02	84	62	17	5	0.7381	0.2024	0.0595	4	0.0476	0	0.0000	1	27	27	0	0	0	5	0	0	1.0000	1.0000	0.5034	0.3243
4	2014-02 – 2014-05	103	71	29	3	0.6893	0.2816	0.0291	5	0.0485	0	0.0000	1	32	32	0	0	0	14	0	0	1.0000	1.0000	0.5348	0.4815
5	2014-05 – 2014-08	65	43	18	4	0.6615	0.2769	0.0615	6	0.0923	0	0.0000	1	25	24	2	2	0	6	0	3	0.0000	0.8182	0.7857	0.7778
6	2014-08 – 2014-11	71	57	10	4	0.8028	0.1408	0.0563	6	0.0845	2	0.1429	1	29	29	3	5	0	16	0	6	0.0000	0.7143	0.5882	0.8333
7	2014-11 – 2015-02	77	64	8	5	0.8312	0.1039	0.0649	4	0.0519	0	0.0000	1	32	32	3	2	0	14	0	3	0.2500	0.7115	0.5270	0.5926
8	2015-02 – 2015-05	113	77	29	7	0.6814	0.2566	0.0619	22	0.1947	3	0.0833	1	40	37	8	23	0	18	0	26	0.0000	0.7628	0.4211	0.2857
9	2015-05 – 2015-08	110	64	42	4	0.5818	0.3818	0.0364	20	0.1818	3	0.0652	1	34	33	8	10	0	6	0	11	0.0000	0.8854	0.6009	0.5122
10	2015-08 – 2015-11	71	48	20	3	0.6761	0.2817	0.0423	10	0.1408	1	0.0435	1	26	24	4	10	0	6	0	10	0.0909	0.7668	0.7956	0.9855
11	2015-11 – 2016-02	69	45	18	6	0.6522	0.2609	0.0870	6	0.0870	2	0.0833	1	30	29	5	6	0	4	0	8	0.1111	0.8426	0.6000	0.5957
12	2016-02 – 2016-05	74	53	19	2	0.7162	0.2568	0.0270	7	0.0946	0	0.0000	1	31	30	2	5	0	5	0	5	0.0000	0.7810	0.4336	0.7111

	core.global.turnover	core.mail.turnover	core.code.turnover	ratio.smelly.quitters	ratio.smelly.devs	global.truck	mail.truck	code.truck	closeness.centri	betweenness.centri	degree.centri	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	0.0923	0.6154	0.5636	0.8000	0.0216	0.1518	0.2070	0.4062	0.4932	0.0229	0.0587	22	1	2	0.8800	0.0400	0.0800
2	0.6667	0.6364	0.8000	0.1000	0.4127	0.6825	0.6078	0.8667	0.0300	0.2361	0.3249	0.1739	0.1185	-0.3648	0.0783	19	1	1	0.9048	0.0476	0.0476
3	0.4255	0.4255	2.0000	0.4324	0.0595	0.6786	0.5970	1.0000	0.0163	0.1474	0.3207	0.2037	0.2037	0.0000	0.0528	27	0	0	1.0000	0.0000	0.0000
4	0.4746	0.4746	0.0000	0.0800	0.1359	0.6893	0.5676	1.0000	0.0135	0.1569	0.3475	0.2572	0.2572	0.0000	0.0544	32	0	0	1.0000	0.0000	0.0000
5	0.7368	0.7500	0.0000	0.1515	0.1538	0.6154	0.4894	0.9091	0.0210	0.1611	0.2998	0.3760	0.2820	-0.3745	0.0596	23	1	1	0.9200	0.0400	0.0400
6	0.6296	0.6038	0.4000	0.1000	0.2676	0.5915	0.5246	0.7857	0.0314	0.3404	0.5549	0.4341	0.3322	-0.3875	0.1022	27	1	2	0.9000	0.0333	0.0667
7	0.4590	0.4590	0.3333	0.2051	0.2208	0.5844	0.5362	0.7692	0.0420	0.1716	0.3951	0.4560	0.3441	-0.3706	0.1049	30	1	2	0.9091	0.0303	0.0606
8	0.3056	0.3478	0.0000	0.2500	0.2920	0.6460	0.5595	0.7778	0.0165	0.2235	0.3633	0.0574	0.2993	0.0081	0.0653	35	6	2	0.8140	0.1395	0.0465
9	0.6216	0.6286	0.3750	0.2388	0.1636	0.6909	0.5147	0.8261	0.0123	0.1445	0.2771	0.5747	0.3575	0.5269	0.0440	31	6	2	0.7949	0.1538	0.0513
10	0.6667	0.7018	0.6667	0.1111	0.1972	0.6338	0.5294	0.8261	0.0216	0.1866	0.3366	0.4107	0.2116	0.2051	0.0777	22	2	2	0.8462	0.0769	0.0769
11	0.5714	0.5660	0.2222	0.1905	0.1884	0.5652	0.4314	0.7917	0.0243	0.2324	0.3858	0.4841	0.4778	0.3069	0.0848	27	3	2	0.8438	0.0938	0.0625
12	0.4590	0.4746	1.1429	0.2258	0.1351	0.5811	0.4545	0.9048	0.0222	0.1436	0.4524	0.4730	0.3528	-0.3241	0.1229	30	2	0	0.9375	0.0625	0.0000

Community smells: Pearson's correlation (Arduino)

	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	0.55	0.41	0.48	0.48	-0.40	0.36	0.04	0.89	0.89	0.79	0.55	-	0.68	0.56	0.85	-	-	0.12	-	1.00	-0.51	-0.40	-0.21	-0.17
prima.donnas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
radio.silence	0.15	0.35	-0.11	-0.02	0.37	-0.30	-0.18	0.07	-0.02	0.07	0.15	-	0.03	0.06	0.00	0.12	-	-	-	0.16	0.21	-0.10	-0.21	-0.25
black.cloud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
missing.links	0.54	0.41	0.46	0.53	-0.39	0.33	0.09	0.88	0.88	0.81	0.57	-	0.68	0.56	0.86	1.00	-	0.16	-	-	-0.51	-0.41	-0.22	-0.20
	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	-0.36	-0.26	-0.34	0.10	0.29	-0.00	-0.12	-0.52	-0.28	0.19	0.06	-0.22	0.12	0.38	-0.07	0.46	0.86	0.50	-0.74	0.82	0.28			
prima.donnas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
radio.silence	-0.10	-0.17	-0.25	-0.41	0.86	0.29	0.51	-0.12	0.36	0.54	0.32	-0.57	-0.56	-0.46	0.15	0.06	-0.01	0.02	0.04	-0.05	-0.00			
black.cloud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
missing.links	-0.36	-0.26	-0.37	0.10	0.33	-0.02	-0.13	-0.54	-0.24	0.24	0.08	-0.24	0.13	0.35	-0.06	0.47	0.87	0.52	-0.75	0.83	0.29			

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

	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	0.07	0.19	0.11	0.12	0.20	0.26	0.91	0.00	0.00	0.00	0.07	-	0.02	0.06	0.00	-	-	0.72	-	0.00	0.09	0.19	0.54	0.61
prima.donnas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
radio.silence	0.65	0.26	0.73	0.95	0.23	0.35	0.57	0.84	0.95	0.82	0.65	-	0.93	0.85	0.99	0.72	-	-	-	0.63	0.52	0.75	0.54	0.46
black.cloud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
missing.links	0.07	0.19	0.13	0.08	0.21	0.29	0.78	0.00	0.00	0.00	0.05	-	0.01	0.06	0.00	0.00	-	0.63	-	-	0.09	0.19	0.52	0.55
	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	0.28	0.44	0.31	0.76	0.37	1.00	0.71	0.08	0.37	0.55	0.86	0.49	0.72	0.23	0.83	0.13	0.00	0.10	0.01	0.00	0.38			
prima.donnas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
radio.silence	0.77	0.61	0.47	0.21	0.00	0.36	0.09	0.71	0.25	0.07	0.30	0.05	0.06	0.13	0.64	0.86	0.98	0.94	0.91	0.88	1.00			
black.cloud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
missing.links	0.28	0.44	0.26	0.77	0.29	0.95	0.68	0.07	0.44	0.46	0.81	0.46	0.70	0.26	0.85	0.12	0.00	0.08	0.00	0.00	0.00	0.36		

Community smells: Spearman’s correlation (Arduino)

	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	0.24	0.04	0.43	0.23	-0.46	0.31	0.07	0.90	0.88	0.84	0.76	-	0.40	0.36	0.91	-	-	-0.03	-	0.99	-0.67	-0.46	0.05	0.19
prima.donnas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
radio.silence	0.18	0.38	0.04	-0.15	0.24	-0.19	-0.23	-0.03	-0.06	0.18	0.19	-	0.18	0.19	0.02	-0.03	-	-	0.04	0.13	-0.28	-0.01	-0.20	
black.cloud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
missing.links	0.27	0.06	0.43	0.25	-0.48	0.31	0.07	0.88	0.86	0.88	0.79	-	0.44	0.40	0.92	0.99	-	0.04	-	-	-0.66	-0.47	0.05	0.16
		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	-0.01	0.08	-0.19	0.31	0.36	-0.19	-0.55	-0.58	-0.03	0.15	0.16	0.38	0.44	0.51	0.16	0.22	0.93	0.70	-0.86	0.86	0.45			
prima.donnas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
radio.silence	0.11	-0.00	-0.23	-0.39	0.80	0.38	0.38	-0.21	0.17	0.57	0.30	-0.45	-0.54	-0.46	0.16	0.19	-0.04	0.04	-0.04	-0.04	-0.14			
black.cloud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
missing.links	-0.00	0.08	-0.21	0.30	0.41	-0.17	-0.57	-0.60	-0.02	0.18	0.19	0.40	0.42	0.46	0.16	0.26	0.93	0.71	-0.86	0.85	0.42			

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

	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	0.46	0.91	0.16	0.48	0.13	0.33	0.82	0.00	0.00	0.00	0.00	-	0.20	0.25	0.00	-	-	0.92	-	0.00	0.02	0.14	0.88	0.58
prima.donnas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
radio.silence	0.57	0.23	0.91	0.64	0.46	0.56	0.47	0.92	0.84	0.58	0.56	-	0.57	0.55	0.95	0.92	-	-	-	0.91	0.69	0.38	0.98	0.56
black.cloud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
missing.links	0.39	0.84	0.16	0.44	0.11	0.33	0.82	0.00	0.00	0.00	0.00	-	0.15	0.19	0.00	0.00	-	0.91	-	-	0.02	0.12	0.87	0.63
	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	0.97	0.82	0.58	0.36	0.25	0.56	0.06	0.05	0.93	0.65	0.62	0.22	0.15	0.09	0.62	0.49	0.00	0.01	0.00	0.00	0.00	0.15		
prima.donnas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
radio.silence	0.76	0.99	0.49	0.23	0.00	0.23	0.22	0.51	0.60	0.06	0.34	0.14	0.07	0.13	0.61	0.55	0.90	0.89	0.91	0.90	0.68			
black.cloud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
missing.links	0.99	0.81	0.53	0.37	0.18	0.60	0.05	0.04	0.95	0.57	0.56	0.20	0.17	0.14	0.62	0.41	0.00	0.01	0.00	0.00	0.17			