Socio-technical analysis result (GitLab)

	range.date		devs	m 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.cor	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	2013-05 -	- 2013-08	212	124	86		0.5849	0.4057	0.0094	20	0.0943	1	0.0114	26	83	74	12	40	0	4	0	40		.0000	0.8020	0.0000	0.0000
2	2013-08 -	- 2013-11	177	96	75	6	0.5424	0.4237	0.0339	23	0.1299	2	0.0247	30	67	68	12	55	0	3	0	58	0.	.0000	0.8404	0.9512	0.8166
3	2013-11 -	- 2014-02	185	97	84	4	0.5243	0.4541	0.0216	23	0.1243	2	0.0227	29	55	56	13	95	0	2	0	95	0.	.0000	0.7804	0.8066	0.7101
4	2014-02 -	- 2014-05	235	115	112	8	0.4894	0.4766	0.0340	29	0.1234	1	0.0083	33	66	58	14	71	0	4	0	73	0.	.0000	0.8656	0.7476	0.6538
5	2014-05 -	- 2014-08	179	104	69	6	0.5810	0.3855	0.0335	27	0.1508	0	0.0000	21	64	61	11	45	0	6	0	48	0.	.0204	0.8027	0.9565	0.9641
6	2014-08 -	- 2014-11	172	95	74	3	0.5523	0.4302	0.0174	21	0.1221	1	0.0130	29	33	20	13	81	0	8	0	81	0.	.0000	0.7988	0.8604	0.6711
7	2014-11 -	- 2015-02	166	79	83	4	0.4759	0.5000	0.0241	18	0.1084	4	0.0460	25	45	42	16	111	0	4	0	111	0.	.0177	0.7719	0.8402	0.6707
8	2015-02 -	- 2015-05	231	101	122	8	0.4372	0.5281	0.0346	40	0.1732	2	0.0154	32	56	54	17	120	0	4	0	123	0.	.0000	0.8241	0.5894	0.4608
9	2015-05 -	- 2015-08	127	45	76	6	0.3543	0.5984	0.0472	24	0.1890	0	0.0000	27	34	29	13	88	0	4	0	89	0.	.0000	0.7756	1.1061	1.0000
10	2015-08 -	- 2015-11	163	48	113	2	0.2945	0.6933	0.0123	35	0.2147	6	0.0522	31	32	31	20	208	0	2	0	208	0.	.0000	0.7819	0.6414	0.5482
11	2015-11 -	- 2016-02	168	41	122	5	0.2440	0.7262	0.0298	43	0.2560	2	0.0157	28	28	30	22	313	0	0	0	314	0.	.0000	0.7579	0.7734	0.6860
12	2016-02 -	- 2016-05	210	67	140	3	0.3190	0.6667	0.0143	36	0.1714	3	0.0210	32	39	38	30	541	0	7	0	542	0.	.0000	0.7352	0.6667	0.6519
	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	B C C C	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			0.1415					0.0022	0.038			0.1359		.8695	0.001		0.00		73	11	1	0.8588	0.1294	0.0118
2	0.000.	1.0000	0.5833			0.1638					0.0017	0.021			0.213		.8639	0.169		0.00		66	10	2	0.8462	0.1282	0.0256
3	0.9508	1.0161	0.4800			0.1838					0.0049	0.158			0.150		.7584	0.085		0.01		55	12	1	0.8088	0.1765	0.0147
4	0.7769	0.9298	0.5926			0.1489					0.0039	0.160			0.271		.6366	0.138		0.00		55	11	3	0.7971	0.1594	0.0435
5	0.0101	0.8403	0.6400			0.1732					0.0074	0.376			0.1960		.5274	0.094		0.01		59	9	2	0.8429	0.1286	0.0286
6	1.1546	1.4815	0.5000			0.226					0.0067	0.289			0.2479		.1175	0.152		0.02		20	13	0	0.6061	0.3939	0.0000
7	0.6154	0.6129	0.4828			0.2470					0.0081	0.297			0.0618		.5846	0.052		0.01	-	40	14	2	0.7143	0.2500	0.0357
8	0.5941	0.6667	0.4848			0.199					0.0051	0.234			0.057		.4817	0.004		0.00		52	15	2	0.7536	0.2174	0.0290
9	0.0111	1.0843	0.6000			0.2913					0.0062	0.118			0.037		.6470	0.013		0.01		27	11	2	0.6750	0.2750	0.0500
10		0.8333	0.3636			0.3129					0.0035	0.028			0.048		.7745	0.046		0.01		30	19	1	0.6000	0.3800	0.0200
11		0.8525	0.4762			0.3333					0.0056	0.069			0.1454		.7653	0.145		0.02		28	20	2	0.5600	0.4000	0.0400
$-\frac{12}{12}$	0.3284	0.7353	0.3462	0.2	2143	0.3476	6 0.81	43 0.45	71 0.79	02	0.0047	0.092	24 0.19)17	0.3013	3 0	.6821	0.274	42	0.02	84	37	29	1	0.5522	0.4328	0.0149

						\mathbf{C}	omm	unity	y sme	ells:	Pear	son's	corr	elati	on (GitI	Lab)							
		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.		0.08	-0.56	0.79	-0.29	-0.73	0.76	-0.32	0.63	0.54	0.41	0.22	0.37	-0.53	-0.43	0.98	-	-	0.03	- 1	.00 -0	.23	-0.69	-0.49	-0.31
prima.don		-	_	_	_	_	-	_	-	_	_	_	_	_	_	-	-	-	-	-	_	-	-	_	_
radio.sile		0.17	0.35	-0.18	-0.10	0.40	-0.39	-0.15	-0.32	-0.45	-0.31	-0.31	-0.10	0.06	-0.11	-0.01	0.03	-	-	- 0.	.04 0	.23	0.01	0.12	0.13
black.cle		0.00	0.56	0.70	- 0.20	0.72	0.76	- 0.21	- 0.62	0.54	0.41	- 0.00	- 0.27	0.52	0.49	- 0.09	1.00	-	- 0.04	-	-	-	0.60	0.40	- 0.21
missing.li	ınks	0.08	-0.56	0.79	-0.29	-0.73	0.76	-0.31	0.63	0.54	0.41	0.22	0.37	-0.53	-0.43	0.98	1.00		0.04		L	0.23	-0.69	-0.49	-0.31
			core.global.turnove	core.mail.turnover	core.code.turnover	m ratio.smelly.qui	ratio.smelly.devs	global.truck	mail.truck	code.truck	closeness.centr		degree.centr	global.mod	mail.mod	code.mod	density	mail.only.core.devs	code.only.core.devs		mi.code.core.de	ratio.mail.oniy.core	ratio.code.only.core	ratio.ml.code.core	
		rg.silo	-0.76	-0.34	-0.76	0.84	0.80	0.67	-0.18	-0.75	0.01	-0.31	-0.04	0.27	0.14	0.62	0.81	-0.43	0.98	-0.19	9 -0.7	5 0	0.75	-0.08	
-		onnas	-				_	_	-	-	-	_	-	-	-	_	_	-	-		-	-	-	-	
		silence	0.08	0.31	0.07	-0.38	-0.11	-0.00	0.71	-0.18	0.31	0.53	0.44	0.49	-0.68	0.31	0.13	-0.09	0.04	-0.30	6 -0.0	5 0	0.10	-0.43	
	black	.cloud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	

 $missing.links \quad -0.76 \quad -0.35 \quad -0.75 \quad 0.84 \quad 0.80 \quad 0.67 \quad -0.18 \quad -0.75 \quad 0.01 \quad -0.31 \quad -0.04 \quad 0.28 \quad 0.14 \quad 0.62 \quad 0.80 \quad -0.43 \quad 0.98 \quad -0.18 \quad -0.75 \quad 0.75 \quad -0.08 \quad -0.80 \quad -0.80$

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

				O	ıııı				- CCL	. O			71011	P'	arac	~ (`	A 1 U I	·~~)	'					
	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.si	ilo 0.80	0.06	0.00	0.35	0.01	0.00	0.32	0.03	0.07	0.18	0.49	0.23	0.08	0.16	0.00	_	-	0.91	- (0.00	0.48	0.01	0.13	0.35
prima.donn		-	_	-	-	_	-	-	-	-	-	-	_	-	-	-	-	-	-	-	_	-	-	-
radio.silen	nce 0.59	0.27	0.58	0.76	0.19	0.21	0.64	0.31	0.14	0.32	0.32	0.77	0.86	0.74	0.96	0.91	-	-	- (0.91	0.48	0.97	0.73	0.70
black.clo	ud -	-	-	-	-	_	-	-	-	-	-	-	_	-	-	-	-	-	-	-	-	-	-	-
missing.lin	nks 0.80	0.06	0.00	0.36	0.01	0.00	0.33	0.03	0.07	0.18	0.49	0.23	0.08	0.16	0.00	0.00	-	0.91	-	-	0.48	0.01	0.13	0.35
		core.global.turnover			ratio.smelly.quitters	m ratio.smelly.devs	global.truck	mail.truck	code.truck	closeness.centr		degree.centr		mail.mod	code.mod	density	mail only core devs	, .		ml.code.core.devs	ratio.mail.only.core	ratio.code.only.core	ratio.ml.code.core	
	org.silo		0.30	0.01	0.00	0.00	0.02	0.59	0.00	0.97	0.33	0.90	0.39	0.66	0.03	0.00	0.10	0.00	0.	56	0.01	0.01	0.79	
-	ma.donnas		-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	
	dio.silence		0.36	0.85	0.25	0.74	0.99	0.01	0.57	0.33	0.08	0.15	0.11	0.01	0.33	0.68	0.7'	7 0.93	1 0.	25	0.88	0.75	0.16	
	olack.cloud		-	-	-	-	-	-	-	-	-	-	-	-	-	-			-		-	-	-	
i	issing.links	0.01	0.30	0.01	0.00	0.00	0.02	0.58	0.00	0.97	0.33	0.90	0.39	0.66	0.03	0.00	0.1	7 0.00	0.	57	0.01	0.01	0.80	

						\mathbf{Co}	mmu	nity	sme	lls: S	Spear	man	's co	rrela	tion	(Gi	\mathbf{tLal}	o)							
		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	mim tz	, 0	orce			org.silo prima.donnas		black.cloud	missing.links	st.congruence	communicability	global.turnover	acceptant of con-
	g.silo	-0.24	-0.71	0.72	-0.16	-0.90	0.90	-0.11	0.60	0.61	0.70	0.52	0.38	-0.73	-0.62	0.9	4		-0.24	-	1.00	-0.23	-0.69	-0.68	-0.59
prima.do		-	-	-	-	- 0.41	- 0.07	-	-	- 0.40	0.00	- 0.40	0.05	0.10		-	-		-	-	-	-	-	- 0.01	0.01
radio.si		0.25	0.28	-0.29	-0.02	0.41	-0.37	-0.04	-0.23	-0.40	-0.39	-0.48	-0.05	0.16	6 -0.08	-0.1	9 -0.	24 -	-	-	-0.24	0.28	0.08	0.21	-0.05
black.omissing.		-0.24	-0.71	0.72	-0.16	-0.90	0.90	-0.11	0.60	0.61	0.70	0.52	0.38	-0.73	-0.62	2 0.9	- 4 1	00 -	-0.24	_	-	-0.23	-0.69	-0.68	-0.59
	.111115	-0.24	-0.71 H	0.12	-0.10	<u>-0.50</u>	0.30	-0.11	0.00	0.01	0.10	0.02	0.50	-0.16	-0.02	0.9	4 1.					0.20	-0.03	= -0.00	-0.08
			core.global.turnove	core.mail.turnover	core.code.turnover	ratio.smelly.quitter	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.c	ratio.code.only.core	ratio m] code core		
_		org.silo	-0.73	-0.49	-0.89	0.82	0.88	0.84	0.02	-0.64	0.13	-0.12	0.11	-0.15	-0.04	0.17	0.76	-0.61	0.93	-0.13	-0.85	0.82	0.15		
	prima.c		-	-	-	- 0.40	-	-	-	-	- 0.05	-	-	-	-	- 0.10	-	- 0.10	-	0.10		-	- 0.04		
	radio.	silence	0.00	0.00	0.33	-0.42	-0.06	0.04	0.67	0.00	0.37	0.56	0.48	0.42	-0.63	0.19	0.07	-0.10	-0.14	-0.19	-0.04	0.08	-0.24		

 $0.88 \quad 0.84 \quad 0.02 \quad -0.64 \quad 0.13 \quad -0.12 \quad 0.11 \quad -0.15 \quad -0.04 \quad 0.17 \quad 0.76 \quad -0.61$

0.93 -0.13 -0.85 0.82

0.15

black.cloud

missing.links -0.73 -0.49 -0.89

0.82

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

				•	01111	Han	ity 5		3. DI		ııaıı	5 00		101011	Р	vara) 23.	O10	Lab	,					
		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.s	silo	0.44	0.01	0.01	0.61	0.00	0.00	0.73	0.04	0.04	0.01	0.08	0.23	0.01	0.03	0.00	_	_	0.45	- 0.	00	0.48	0.02	0.03	0.06
prima.doni		-	-	_	-	-	_	_	_	-	-	-	-	-	_	-	_	-	-	-	-	-	-	_	-
radio.siler	nce	0.44	0.38	0.36	0.95	0.19	0.24	0.90	0.48	0.20	0.21	0.11	0.87	0.63	0.81	0.55	0.45	-	-	- 0.	45	0.37	0.81	0.54	0.88
black.clo	oud	-	-	-	-	-	_	-	-	-	-	-	-	_	-	-	-	-	-	-	-	-	-	-	-
missing.lir	nks	0.44	0.01	0.01	0.61	0.00	0.00	0.73	0.04	0.04	0.01	0.08	0.23	0.01	0.03	0.00	0.00	-	0.45	-	-	0.48	0.02	0.03	0.06
			$\operatorname{core.global.turnover}$			${ m ratio.smelly.quitters}$	${ m ratio.smelly.devs}$	global.truck	mail.truck	code.truck	closeness.centr	betweenness.centr	degree.centr		mail.mod	code.mod	density	mail only core days			III. code. core. devs	ratio.mail.only.core	ratio.code.only.core	ratio.ml.code.core	
		rg.silo	0.02	0.13	0.00	0.00	0.00	0.00	0.96	0.03	0.68	0.72	0.73	0.65	0.90	0.60	0.01	0.0	3 0.00	0.6	8 0	.00	0.00	0.65	
-		onnas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	
		ilence	0.99	0.99	0.33	0.19	0.85	0.90	0.02	0.99	0.24	0.06	0.11	0.18	0.03	0.56	0.83	0.7'	7 0.67	0.5	5 0	.89	0.81	0.45	
		cloud	- 0.02	- 0.10	-	-	-	-	-	-	- 0.00			-	-	-	-	0.0			-	-	-	-	
m	issing	links:	0.02	0.13	0.00	0.00	0.00	0.00	0.96	0.03	0.68	0.72	0.73	0.65	0.90	0.60	0.01	0.0	0.00	0.6	8 0	.00	0.00	0.65	