Socio-technical analysis result (Capistrano)

													$J \sim -\infty$	- 000	<u> </u>		1		 ,								
	range.date			devs	ml.only.devs	${\rm code.only.devs}$	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.suence black.cloud	missing.links	st.congruence		communicability	global.turnover	code.turnover
-	2013-	06 - 2013	3-09	36	24	11	1 (0.6667	0.3056	0.0278	3	0.0833	0	0.0000	1	15	12	3	6	0	4 0	6	0.0000	0.638	89 (0.0000	0.0000
4	2 2013-	09 - 2013	3-11	85	59	25	1 (0.6941	0.2941	0.0118	7	0.0824	2	0.0769	1	19	17	4	8	0	0 0	8	0.0000	0.802	29 (0.4463	0.4211
;	3 2013-	11 - 2014	4-02	73	49	23	1 (0.6712	0.3151	0.0137	10	0.1370	1	0.0417	1	28	25	2	2	0	0 0	2	0.0000	0.875	50 (0.9494	0.8000
4	1 2014-	02 - 201	4-05	75	41	32	2 (0.5467	0.4267	0.0267	16	0.2133	3	0.0882	1	24	19	6	11	0	4 0	11	0.0000	0.86	10 (0.8378	0.6207
ļ	5 2014-	05 - 201	4-08	35	24	10	1 (0.6857	0.2857	0.0286	3	0.0857	0	0.0000	1	14	13	1	1	0	2 0	1	0.0000	0.818	82 1	1.1636	1.2889
(6 2014-	08 - 201	4-11	33	16	15	2 (0.4848	0.4545	0.0606	7	0.2121	1	0.0588	1	10	9	3	1	0	0 0	1	0.5000	0.941	12 (0.8235	0.4286
,	7 2014-	11 - 201	5-02	25	10	14	1 (0.4000	0.5600	0.0400	3	0.1200	0	0.0000	1	8	6	2	5	0 1	1 0	5	0.0000	0.693	33 (0.9310	0.8125
8	3 2015-	02 - 201	5-05	36	23	12			0.3333	0.0278	5	0.1389	0	0.0000	1	16	13	3	4	0 1	1 0	4	0.0000	0.692		0.6885	0.8571
(05 - 2018		30	16	13	1 (0.4333	0.0333	4	0.1333	1	0.0714	1	12	10	4	9	0	0 0	9	0.0000	0.642		0.8182	0.5185
10		08 - 201		21	12	9			0.4286	0.0000	4	0.1905	0	0.0000	1	8	7	2	3	0	0 0	3	0.0000	0.666		1.0196	0.9565
1.		11 - 2010		16	5	10			0.6250	0.0625	3	0.1875	1	0.0909	1	5	3	1	1	-	6 0	1	0.0000	0.818		0.8649	0.5000
12	2 2016-	02 - 2010	6-05	18	7	10	1 (0.3889	0.5556	0.0556	4	0.2222	0	0.0000	1	8	5	3	6	0	8 0	6	0.0000	0.500	00 0	0.7647	0.7273
	core.global.turnover	core.mail.turnover		core.code.turnover		ratio.smelly.quitters	ratio.smelly.devs	global.truck)		code.truck	closeness.centr		Detweetiness.cent.	acgree.	global.mod)	mail.mod		code.mod	density	mail only core devs	code.only.	ml.code.core.devs	ratio.mail.only.core	ratio.code.only.core	
1	0.0000	0.0000	0.00		0.000		0.2222	0.5833				0.0573	0.594			0.0440		0.2765		3268	0.0571	1:			7857	0.1429	
2	0.8235	0.7586	0.57		0.185		0.0706						0.529			0.5724		0.4302)112	0.0569				8095	0.1905	
3	0.7234	0.7619	1.00		0.026		0.0411	0.6164					0.323			0.2388		0.1496		3753	0.0236				9259	0.0741	
4	0.8846	0.9091	0.50		0.032		0.1867	0.6800					0.365			0.5090		0.3023		2167	0.0252				7600	0.2400	
5	1.0526	0.9375	1.42		0.140		0.1143	0.6000					0.2023			0.4280		0.3668		5000	0.0504				9286	0.0714	
6	0.9167	1.0000	0.50		0.107		0.0606	0.6970				0.0321	0.238			0.5063		0.2526		2778	0.0436				7000	0.1000	0.2000
(0.8889	0.9333	0.40		0.037		0.6000	0.6800				0.0479	0.295			0.4081		0.2698)509	0.0567		5 1		7143	0.1429	
8	0.5000	0.4211	0.40		0.571		0.4167	0.5556				0.0520	0.5830			0.1356		0.0197		1247	0.0460		$\begin{array}{ccc} 2 & 2 \\ 0 & 2 \end{array}$		8000	0.1333	
10	1.0000	0.9565	0.57		0.444		0.2000	0.6000				0.0463	0.3923			0.5047		0.0256		1195	0.0552		9 3 7 0		6923	0.2308	
10	1.1000	1.0588	1.33		0.153		0.1429	0.6190				0.0521	0.2842			0.4335).1145		3400	0.0714		7 2		7778	0.2222	
11	1.0769	1.2000	1.33		0.125		0.5000	0.6875				0.0396	0.095			0.4501		0.3107		5000	0.0500		0 1		7500	0.2500	0.0000
12	0.6154	0.5000	0.50	UU	0.461	19 (0.7778	0.5556	0.375	0.727	3	0.0305	0.150	0.326	5	0.1282	: -U	0.3147	-0.,	3501	0.0850	,	o 3	0 0.	6250	0.3750	0.0000

					Con	nmuı	nity s	\mathbf{smell}	ls: P	earso	n's c	corre	elatio	on (Capi	strar	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	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	0.42	0.34	0.54	0.22	0.10	-0.07	-0.23	0.43	-0.03	0.54	0.29	-	0.32	0.23	0.88	-	-	0.03	-	1.00	-0.35	-0.31	-0.49	-0.37
prima.donnas	-		-	-	- 0.49		-	-	-	-	- 0.40	-	-	-	- 0.11	-	-	-	-	-	-		-	- 0.15
radio.silence	-0.38	-0.42	-0.25	0.01	-0.43	0.42	0.38	-0.24	0.07	-0.36	-0.40	-	-0.30	-0.39	-0.11	0.03	-	-	-	0.03	-0.28	-0.42	-0.09	0.17
black.cloud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
missing.links	0.42	0.34	0.54	0.22	0.10	-0.07	-0.23	0.43	-0.03	0.54	0.29	-	0.32	0.23	0.88	1.00	-	0.03	-		-0.35	-0.31	-0.49	-0.37
		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		<u> </u>	density	انوسر		code.only.core.devs	ml.code.core.devs	ratio.mail.only.core	ratio.code.only.core	ratio.ml.code.core	
	rg.silo	-0.17	-0.23	-0.59	0.20	0.05	0.11	0.25	-0.51	-0.10	0.47	0.31	0.12	0.15	0.48	0.01	0.2	4 0.	87	-0.10	-0.35	0.46	-0.14	
prima.d		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	
radio.s		-0.49	-0.42	-0.38	0.33	0.84	-0.29	-0.31	-0.09	0.37	0.02	-0.01	-0.47	-0.65	0.11	0.20	-0.3	8 -0.	15	0.09	-0.32	0.21	0.14	
black	.cloud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	

-0.51 -0.10 0.47

0.31

0.12

0.15 0.48 0.01

0.24

 $0.87 \quad -0.10 \quad -0.35 \quad 0.46 \quad -0.14$

missing.links -0.17 -0.23 -0.59 0.20 0.05

0.11

0.25

			$\mathbf{C}\mathbf{c}$	mm	unity	y sm	ells:	Pea	rsor	ı's co	orrel	atio	on -	p-va	lues	s (C	Cap	istra	no)				
	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	0.18	0.28	0.07	0.49	0.76	0.83	0.47	0.16	0.93	0.07	0.35	-	0.32	0.47	0.00	-	-	0.93	-	0.00	0.26	0.33	0.12	0.27
prima.donnas	-	- 0.10	- 40	-	- 0.10	- 0.15	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-
radio.silence	0.22	0.18	0.43	0.98	0.16	0.17	0.22	0.45	0.82	0.25	0.20	-	0.35	0.22	0.73	0.93	-	-	-	0.93	0.37	0.17	0.79	0.62
black.cloud	0.10	0.00	0.07	0.40	0.76	0.02	0.47	0.16	0.02	0.07	0.25	-	- 0.22	0.47	- 0.00	0.00	-	0.02	-	-	0.06	0.22	0.10	0.07
missing.links	0.18	0.28	0.07	0.49	0.76	0.83	0.47	0.16	0.93	0.07	0.35	-	0.32	0.47	0.00	0.00		0.93			0.26	0.33	0.12	0.27
		core.global.turnove	core.mail.turnover	core.code.turnover	ratio.smelly.quitters	${\rm ratio.smelly.devs}$	global.truck	mail.truck	code.truck	closeness.centr	betweenness.centr	degree.centr	global.1		1		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	
	g.silo	0.61	0.49	0.06	0.55	0.88	0.72	0.44	0.09	0.75	0.12	0.33	3 0.71	0.63	0.1	1 0.9	98	0.46	0.00	0.76	0.26	0.13	0.66	
prima.do		-	-	-	-	-	-	-	-	-	-				-	_	_	-	-	-	-	-	-	
radio.si black.		0.12	0.19	0.25	0.33	0.00	0.36	0.33	0.77	0.24	0.95	0.98	3 0.12 	0.02	2 0.7 -	'4 0.5 -	54 -	0.22	0.65	0.77 -	0.32	0.51	0.66	

 $missing.links \quad 0.61 \quad 0.49 \quad 0.06 \quad 0.55 \quad 0.88 \quad 0.72 \quad 0.44 \quad 0.09 \quad 0.75 \quad 0.12 \quad 0.33 \quad 0.71 \quad 0.63 \quad 0.11 \quad 0.98 \quad 0.46 \quad 0.00 \quad 0.76 \quad 0.26 \quad 0.13 \quad 0.66 \quad 0.98 \quad 0.98 \quad 0.98 \quad 0.99 \quad 0.99$

					Com	mun	ity s	mells	s: S p	earm	an's	corı	relat	ion (Cap	istra	no)						
	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	0.36	0.28	0.42	0.12	0.07	-0.10	-0.33	0.28	-0.07	0.29	0.16	-	0.34	0.26	0.84	-	-	0.05	-	1.00	-0.40	-0.46	-0.52	-0.22
prima.donnas	- 0.00	- 0.49	- 0.00	- 0.04	- 0.49	0.05	0.41	- 0.40	0.15	- 0.46	0.20	-	- 0.07	- 0.00	0.16	-	-	-	-	-	- 0.20	0.01	0.10	- 0.20
radio.silence	-0.28	-0.43	-0.22	0.04	-0.43	0.35	0.41	-0.40	0.15	-0.46	-0.32	-	-0.27	-0.36	-0.16	0.05	-	-	-	0.05	-0.32	-0.31	-0.12	0.32
black.cloud missing.links	0.36	0.28	0.42	0.12	0.07	-0.10	-0.33	0.28	-0.07	0.29	0.16	-	0.34	0.26	0.84	1.00	_	0.05	-	-	-0.40	-0.46	-0.52	-0.22
	0.30	0.20 H	0.42	0.12		-0.10	-0.55	0.20	-0.01	0.29	0.10		0.54	0.20	0.04	1.00		0.00					-0.52	-0.22
		core.global.turnove	core.mail.turnover	core.code.turnover	ratio.smelly.quitters	ratio.smelly.devs	global.truck	mail.truck	code.truck	closeness.centr	betweenness.centr	degree.centr		grobai.	mall.mod gode mod			mail.only.core.devs	code.only.core.devs	ml.code.core.devs	ratio.mail.on	ratio.code.only.	ratio.ml.code.core	_
	$_{ m rg.silo}$	-0.39	-0.46	-0.45	0.22	0.24	-0.13	0.07	-0.57	-0.03	0.59	0.38	0.1	5 0.1	3 - 0.48	0.27	0.	26	0.86	-0.00	-0.25	0.50	0.02	
prima.d		-	-	-	- 0.15	-	-	-	-	-	-			-				-	- 0.10	0.44			-	
radio.s	$_{ m silence}$	-0.35	-0.36	-0.53	0.17	0.84	-0.38	-0.21	-0.08	0.29	-0.07	-0.15	-0.55	2 -0.5	5 0.04	0.11	-0.	38 -	0.18	0.11	-0.19	0.22	0.09	

0.59

0.38

0.15

 $0.13 \quad 0.48 \quad 0.27$

0.26

0.86 -0.00 -0.25 0.50 0.02

black.cloud

missing.links -0.39 -0.46 -0.45 0.22 0.24

-0.13

0.07

-0.57 -0.03

Community smells: Spearman's correlation - p-values (Capistrano)																								
	devs	ml.only.devs	${\rm code.only.devs}$	m 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	0.25	0.38	0.17	0.71	0.84	0.75	0.30	0.38	0.83	0.36	0.62	-	0.27	0.42	0.00	-	-	0.87	-	0.00	0.20	0.14	0.10	0.52
prima.donnas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
radio.silence	0.38	0.16	0.50	0.91	0.16	0.26	0.19	0.19	0.65	0.13	0.31	-	0.39	0.26	0.62	0.87	-	-	-	0.87	0.31	0.33	0.72	0.34
black.cloud	-	-	- 0.15		-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-
missing.links	0.25	0.38	0.17	0.71	0.84	0.75	0.30	0.38	0.83	0.36	0.62		0.27	0.42	0.00	0.00		0.87		-	0.20	0.14	0.10	0.52
		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		-			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	_
	g.silo	0.24	0.16	0.16	0.52	0.45	0.68	0.83	0.05	0.92	0.04	0.22	2 0.6	4 0.6	9 0.1	1 0.	40	0.41	0.00	1.00	0.43	0.10	0.95	
prima.do	onnas	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	

 $missing.links \quad 0.24 \quad 0.16 \quad 0.16 \quad 0.52 \quad 0.45 \quad 0.68 \quad 0.83 \quad 0.05 \quad 0.92 \quad 0.04 \quad 0.22 \quad 0.64 \quad 0.69 \quad 0.11 \quad 0.40 \quad 0.41 \quad 0.00 \quad 1.00 \quad 0.43 \quad 0.10 \quad 0.95 \quad 0.92 \quad 0.92$

black.cloud