## Socio-technical analysis result ( Vagrant )

	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	${\it global.turnover}$	code.turnover
1	2013-06	- 2013-09	227	174	50	3 (	0.7665	0.2203	0.0132	15	0.0661	2	0.0377	1	93	86	9	22	0	6	0	23	0.00	000	0.7555	0.0000	0.0000
2	2013-09	-2013-12	242	161	77	4 (	0.6653	0.3182	0.0165	24	0.0992	5	0.0617	1	92	77	17	40	0	13	0	41	0.00	000	0.7844	0.8188	0.6866
3	2013-12	-2014-03	225	160	61	4 (	0.7111	0.2711	0.0178	15	0.0667	4	0.0615	1	90	81	16	23	0	5	0	23	0.08	800	0.8332	0.8908	0.9726
$_4$	2014-03	-2014-05	342	246	88	8 (	0.7193	0.2573	0.0234	27	0.0789	6	0.0625	1 1	.37	114	28	99	0	23	0	102	0.00	097	0.6944	0.6631	0.7081
5	2014-05	-2014-08	215	170	41	4 (	0.7907	0.1907	0.0186	14	0.0651	1	0.0222	1	81	79	4	8	0	8	0	10	0.00	000	0.8311	1.1059	1.2766
6	2014-08	-2014-11	224	155	64	5 (		0.2857	0.0223	20	0.0893	0	0.0000	1	85	77	10	19	0	19	0	19	0.00	000	0.8047	0.8246	0.6140
7	2014-11	-2015-02	218	149	63	6 (	0.6835	0.2890	0.0275	25	0.1147	0	0.0000	1	67	64	6	6	0	0	0	8	0.11	111	0.9372	0.8688	0.8261
8	2015-02	-2015-05		138	58			0.2900	0.0200	16	0.0800	0	0.0000	1	64	64	1	1	0	41	0	1	0.00	000	0.9677	0.8804	0.8702
9	2015-05	-2015-08	215	134	76	5 (	0.6233	0.3535	0.0233	12	0.0558	1	0.0123	1	72	60	14	21	0	6	0	23	0.00	000	0.9297	0.7518	0.4336
10	2015-08		168	98	67	3 (	0.5833	0.3988	0.0179	15	0.0893	1	0.0143	1	62	55	8	25	0	6	0	25	0.00	000	0.8777	0.9608	0.8609
11	2015-11	- 2016 <b>-</b> 02		107	58			0.3452	0.0179	21	0.1250	2	0.0328		61	55	7	11	0	6	0	11	0.00		0.9270	0.8690	0.9618
12	2016-02	- 2016-05	135	108	24	3 (	0.8000	0.1778	0.0222	9	0.0667	1	0.0370	1	60	58	2	2	0	56	0	2	0.00	000	0.8889	0.9835	1.2273
	core.global.turnover	core.mail.turnover	core.code.turnover		ratio.smelly.quitters	ratio.smellv.devs		gional.ci uch	mail.truck	code.truck	closeness.centr		Detweetiness.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
1	0.0000	0.0000	0.000.0	0.00	000 ratio.	0.1057	$\frac{1}{2}$ $\frac{1}$	$\frac{1}{3}$ $0.51$	41 0.83	900 02	0.0055	0.243	7 0.242	1 0.6	ladolg 6366	0.68	II E E T T T	0.45	48	0.009	98	85	8	ml.code.core.devs	vloonly.	ratio.code.only.	0.0106
1 2	$0.0000 \\ 0.8216$	0.0000 0.8466	0.0000 0.4615	0.09	000 ratio.	0.1057 0.1057 0.1901	$\frac{1}{6}$ $\frac{1}$	3 0.51 8 0.53	41 0.83 33 0.79	02 01	0.0055 0.0055	0.243' 0.298	7 0.2424 1 0.259	0.6 6 0.4	Fedola 6366 4580	0.61	757 27	0.23	48 54	0.009	98 03	85 76	8 16	1 1	%io.mail.only 0.9043 0.8172	0.0851 0.1720	0.0106 0.0108
1 2 3	0.0000 0.8216 0.8242	0.0000 0.8466 0.8101	0.0000 0.4615 0.7273	$0.09 \\ 0.15$	980 000 ratio	0.1057 0.1901 0.1333	7 0.590 1 0.619 3 0.600	$\frac{7}{3}$ $0.51$ $\frac{1}{8}$ $0.53$ $0$ $0.50$	41 0.83 33 0.79 61 0.75	02 01 38	0.0055 $0.0055$ $0.0062$	0.243° 0.298° 0.2974	7 0.2424 1 0.2598 4 0.2888	0.6 6 0.4 8 0.3	Fedola 6366 4580 3807	$0.61 \\ 0.62$	78 Figure 1975	0.23	48 54 08	0.009	98 03 04	85 76 79	8 16 14	ml.code.core.devs	%ino:lisemoilsoni 0.9043 0.8172 0.8316	0.0851 0.1720 0.1474	0.0106 0.0108 0.0211
1 2 3 4	0.0000 0.8216 0.8242 0.6167	0.0000 0.8466 0.8101 0.6564	0.0000 0.4615 0.7273 0.5000	0.09 0.15 0.11	000 000 038 .17	0.1057 0.1901 0.1333 0.2251	7 0.590 1 0.619 3 0.600 1 0.599	3 0.514 8 0.533 0 0.506 4 0.55	41 0.83 33 0.79 61 0.75 12 0.70	02 01 38 83	0.0055 0.0055 0.0062 0.0045	0.243° 0.298° 0.2974 0.3914	7 0.2424 1 0.2598 4 0.2888 4 0.3763	0.6 6 0.4 8 0.3 8 0.2	Fedoral 6366 4580 3807 2114	$0.61 \\ 0.62 \\ 0.50$	78 26	0.23 $0.30$ $0.16$	48 54 08 20	0.009 0.010 0.010 0.007	98 03 04 79	85 76 79 110	8 16 14 24	1 1	0.9043 0.8172 0.8316 0.7971	0.0851 0.1720 0.1474 0.1739	0.0106 0.0108 0.0211 0.0290
$-\frac{1}{2}$ $\frac{3}{4}$ $\frac{4}{5}$	0.0000 0.8216 0.8242 0.6167 1.0734	0.0000 0.8466 0.8101 0.6564 0.9845	0.0000 0.4615 0.7273 0.5000 1.6875	0.09 $0.15$ $0.11$ $0.21$	000 090 538 .17 .43	0.1057 0.1901 0.1333 0.2251 0.0698	7 0.590 1 0.619 3 0.600 1 0.599 8 0.623	3 0.51 8 0.53 0 0.50 4 0.55 3 0.54	41 0.83 33 0.79 61 0.75 12 0.70 60 0.91	02 01 38 83 11	0.0055 0.0055 0.0062 0.0045 0.0074	0.243° 0.298° 0.297° 0.391° 0.544°	7 0.2424 1 0.2598 4 0.2888 4 0.3763 3 0.5734	0.6 0.4 0.3 0.3 0.2 1 0.4	Fedologia 5366 4580 3807 2114 4715	0.61 $0.62$ $0.50$ $0.37$	57 27 78 26 40	0.23 0.30 0.16 0.01	48 54 08 20 71	0.009 0.010 0.010 0.007 0.010	98 03 04 79 07	85 76 79 110 78	8 16 14 24 3	1 1 2 4 1	0.9043 0.8172 0.8316 0.7971 0.9512	0.0851 0.1720 0.1474 0.1739 0.0366	0.0106 0.0108 0.0211 0.0290 0.0122
1 2 3 4 5 6	0.0000 0.8216 0.8242 0.6167 1.0734 0.7711	0.0000 0.8466 0.8101 0.6564 0.9845 0.8077	0.0000 0.4615 0.7273 0.5000 1.6875 0.4286	0.09 0.15 0.11 0.21 0.04	000 090 638 17 43	0.1057 0.1901 0.1333 0.2251 0.0698 0.1607	7 0.590 1 0.619 3 0.600 1 0.599 8 0.623 7 0.620	3 0.51 8 0.53 0 0.50 4 0.55 3 0.54 5 0.51	41 0.83 33 0.79 61 0.75 12 0.70 60 0.91 88 0.85	902 01 38 83 11 51	0.0055 0.0055 0.0062 0.0045 0.0074 0.0063	0.243° 0.298° 0.297° 0.391° 0.544° 0.415°	7 0.2424 1 0.2599 4 0.2888 4 0.3763 3 0.5734 2 0.4484	0.6 0.4 0.3 0.3 0.2 1 0.4 0.6	6366 4580 3807 2114 4715 6023	0.61 0.62 0.50 0.37 0.39	57 27 78 26 40 55	0.233 0.300 0.165 0.017 0.237	48 54 08 20 71	0.009 0.010 0.010 0.007 0.010 0.009	98 03 04 79 07	85 76 79 110 78 75	8 16 14 24	1 1 2 4 1 2	0.9043 0.8172 0.8316 0.7971 0.9512 0.8824	0.0851 0.1720 0.1474 0.1739 0.0366 0.0941	0.0106 0.0108 0.0211 0.0290 0.0122 0.0235
$ \begin{array}{c}     1 \\     2 \\     3 \\     4 \\     5 \\     6 \\     7 \end{array} $	0.0000 0.8216 0.8242 0.6167 1.0734 0.7711 0.9211	0.0000 0.8466 0.8101 0.6564 0.9845 0.8077 0.8936	0.0000 0.4615 0.7273 0.5000 1.6875 0.4286 1.0000	0.09 0.15 0.11 0.21 0.04 0.12	000 000 090 638 .17 .43 142	0.1057 0.1901 0.1333 0.2251 0.0698 0.1607 0.0413	7 0.590 1 0.619 3 0.600 1 0.599 8 0.623 7 0.620 3 0.692	3 0.51 8 0.53 0 0.50 4 0.55 3 0.54 5 0.51 7 0.58	41 0.83 33 0.79 61 0.75 12 0.70 60 0.91 88 0.85 71 0.91	902 01 38 83 11 51 30	0.0055 0.0055 0.0062 0.0045 0.0074 0.0063 0.0064	0.243° 0.298° 0.297° 0.391° 0.544° 0.415° 0.4008	7 0.2424 1 0.2594 4 0.2888 4 0.376; 3 0.5734 2 0.4484 8 0.4508	0.6 0.4 0.3 0.3 0.2 1 0.4 0.6 0.5	6366 4580 3807 2114 4715 6023 5647	0.61 0.62 0.50 0.37 0.39 0.50	57 27 78 26 40 55 65	0.233 0.300 0.163 0.017 0.237 0.024	48 54 08 20 71 74	0.009 0.010 0.010 0.007 0.010 0.009	98 03 04 79 07 90	85 76 79 110 78 75 62	8 16 14 24 3 8 4	1 1 2 4 1	0.9043 0.8172 0.8316 0.7971 0.9512 0.8824 0.9118	0.0851 0.1720 0.1474 0.1739 0.0366 0.0941 0.0588	0.0106 0.0108 0.0211 0.0290 0.0122 0.0235 0.0294
1 2 3 4 5 6 7 8	0.0000 0.8216 0.8242 0.6167 1.0734 0.7711 0.9211 0.8550	0.0000 0.8466 0.8101 0.6564 0.9845 0.8077 0.8936 0.8281	0.0000 0.4615 0.7273 0.5000 1.6875 0.4286 1.0000 1.4286	0.09 0.15 0.11 0.21 0.04 0.12 0.03	000 090 338 17 43 442 250 326	0.1057 0.1901 0.1333 0.2251 0.0698 0.1607 0.0413 0.2150	7 0.590 1 0.619 3 0.600 1 0.599 8 0.623 7 0.620 3 0.692 0 0.680	3 0.51 8 0.53 0 0.50 4 0.55 3 0.54 5 0.51 7 0.58 0 0.54	41 0.83 33 0.79 61 0.75 12 0.70 60 0.91 88 0.85 71 0.91 93 0.98	902 01 38 83 11 51 30 39	0.0055 0.0055 0.0062 0.0045 0.0074 0.0063 0.0064 0.0072	0.243° 0.298° 0.297° 0.391° 0.544° 0.415° 0.4008 0.3960	7 0.2424 1 0.2599 4 0.2889 4 0.3769 3 0.5734 2 0.4484 8 0.4509 6 0.5129	1 0.6 0.4 0.3 0.3 0.2 1 0.4 0.6 0.5 0.5 0.5 0.5	Fequilian Fequil	0.61 0.62 0.50 0.37 0.39 0.50 0.20	78 27 78 26 40 55 65 36	0.236 0.300 0.165 0.016 0.236 0.026 -0.500	48 54 08 20 71 74 41	0.009 0.010 0.000 0.000 0.010 0.009 0.010	98 03 04 79 07 90 03	85 76 79 110 78 75 62 63	8 16 14 24 3 8 4 0	1 1 2 4 1 2	0.9043 0.8172 0.8316 0.7971 0.9512 0.8824 0.9118 0.9844	0.0851 0.1720 0.1474 0.1739 0.0366 0.0941 0.0588 0.0000	0.0106 0.0108 0.0211 0.0290 0.0122 0.0235 0.0294 0.0156
3 4 5 6 7 8 9	0.0000 0.8216 0.8242 0.6167 1.0734 0.7711 0.9211 0.8550 0.7647	0.0000 0.8466 0.8101 0.6564 0.9845 0.8077 0.8936 0.8281 0.8548	0.0000 0.4615 0.7273 0.5000 1.6875 0.4286 1.0000 1.4286 0.0000	0.09 0.15 0.11 0.21 0.04 0.12 0.03 0.23	000 090 338 .17 .43 .442 .250 .326 .308	0.1057 0.1901 0.1333 0.2251 0.0698 0.1607 0.0413 0.2150 0.1395	7 0.590 1 0.619 3 0.600 1 0.599 8 0.623 7 0.620 3 0.692 0 0.680 5 0.665	3 0.51 8 0.53 0 0.50 4 0.55 3 0.54 5 0.51 7 0.58 0 0.54 1 0.56	41 0.83 33 0.79 61 0.75 12 0.70 60 0.91 88 0.85 71 0.91 93 0.98 83 0.82	902 01 38 83 11 51 30 39	0.0055 0.0055 0.0062 0.0045 0.0074 0.0063 0.0064 0.0072 0.0060	0.243° 0.298° 0.2974° 0.3914° 0.415° 0.4008° 0.3960° 0.3396°	7 0.2424 1 0.2599 4 0.2888 4 0.3763 3 0.5734 2 0.4488 8 0.4509 3 0.5122 1 0.4673	1 0.6 6 0.4 8 0.3 8 0.2 4 0.4 4 0.6 6 0.5 0.2	Fequilia (1986) 1880 1880 1880 1880 1880 1880 1880 188	0.61 0.62 0.50 0.37 0.39 0.50 0.20 0.38	Figure 57 27 78 26 40 55 65 36 10	0.233 0.300 0.163 0.017 0.233 0.024 -0.500 0.623	48 54 08 20 71 74 41 00	0.009 0.010 0.010 0.000 0.010 0.010 0.010	98 03 04 79 07 90 03 04 95	85 76 79 110 78 75 62 63 57	8 16 14 24 3 8 4	1 1 2 4 1 2	0.9043 0.8172 0.8316 0.7971 0.9512 0.8824 0.9118 0.9844 0.8028	0.0851 0.1720 0.1474 0.1739 0.0366 0.0941 0.0588 0.0000 0.1549	0.0106 0.0108 0.0211 0.0290 0.0122 0.0235 0.0294 0.0156 0.0423
3 4 5 6 7 8 9	0.0000 0.8216 0.8242 0.6167 1.0734 0.7711 0.9211 0.8550 0.7647 0.8507	0.0000 0.8466 0.8101 0.6564 0.9845 0.8077 0.8936 0.8281 0.8548 0.8174	0.0000 0.4615 0.7273 0.5000 1.6875 0.4286 1.0000 1.4286 0.0000 1.0000	0.09 0.15 0.11 0.21 0.04 0.12 0.03 0.23 0.12	000 090 338 17 43 442 250 326 308 250	0.1057 0.1901 0.1333 0.2251 0.0698 0.1607 0.0413 0.2150 0.1395 0.1429	7 0.590 1 0.619 3 0.600 1 0.599 8 0.623 7 0.620 3 0.692 0 0.680 5 0.665 9 0.631	3 0.51 8 0.53 0 0.50 4 0.55 3 0.54 5 0.51 7 0.58 0 0.54 1 0.56 0 0.45	41 0.83 33 0.79 61 0.75 12 0.70 60 0.91 88 0.85 71 0.91 93 0.98 83 0.82 54 0.88	900 02 01 38 83 11 51 30 39 72 57	0.0055 0.0055 0.0062 0.0045 0.0074 0.0063 0.0064 0.0072 0.0060 0.0077	0.243° 0.298° 0.297° 0.391° 0.5444° 0.415° 0.4008° 0.396° 0.339° 0.380°	7 0.2424 1 0.2599 4 0.2888 4 0.3763 3 0.5734 2 0.4484 8 0.4509 6 0.5122 1 0.4673 4 0.4633	1 0.6 6 0.4 8 0.3 8 0.2 1 0.4 4 0.6 6 0.5 0.2 2 0.6 2 0.5	Fequilibrium Fequi	0.61 0.62 0.50 0.37 0.39 0.50 0.20 0.38	Figure 57 27 78 26 40 55 65 36 10 16	0.23 0.30 0.16 0.01 0.23 0.02 -0.50 0.62 0.43	48 54 08 20 71 74 41 00 13 27	0.009 0.010 0.010 0.010 0.010 0.010 0.010 0.009	98 03 04 79 07 90 03 04 95	85 76 79 110 78 75 62 63 57 54	8 16 14 24 3 8 4 0 11	1 1 2 4 1 2	0.9043 0.8172 0.8316 0.7971 0.9512 0.8824 0.9118 0.9844 0.8028 0.8710	0.0851 0.1720 0.1474 0.1739 0.0366 0.0941 0.0588 0.0000 0.1549 0.1129	0.0106 0.0108 0.0211 0.0290 0.0122 0.0235 0.0294 0.0156 0.0423 0.0161
3 4 5 6 7 8 9	0.0000 0.8216 0.8242 0.6167 1.0734 0.7711 0.9211 0.8550 0.7647	0.0000 0.8466 0.8101 0.6564 0.9845 0.8077 0.8936 0.8281 0.8548	0.0000 0.4615 0.7273 0.5000 1.6875 0.4286 1.0000 1.4286 0.0000	0.09 0.15 0.11 0.21 0.04 0.12 0.03 0.23	000 090 538 .17 .43 .442 250 326 308 250 233	0.1057 0.1901 0.1333 0.2251 0.0698 0.1607 0.0413 0.2150 0.1395	7 0.590 1 0.619 3 0.600 1 0.599 8 0.623 7 0.620 3 0.692 0 0.680 5 0.665 9 0.631 1 0.636	3 0.51 8 0.53 0 0.50 4 0.55 3 0.54 5 0.51 7 0.58 0 0.54 1 0.56 0 0.45 9 0.50	41 0.83 33 0.79 61 0.75 12 0.70 60 0.91 88 0.85 71 0.91 93 0.98 83 0.82 54 0.88 00 0.88	900 02 01 38 83 11 51 30 39 72 57	0.0055 0.0055 0.0062 0.0045 0.0074 0.0063 0.0064 0.0072 0.0060	0.243° 0.298° 0.2974° 0.3914° 0.415° 0.4008° 0.3960° 0.3396°	7 0.2424 1 0.2599 4 0.2888 4 0.376; 3 0.5734 2 0.4484 8 0.4509 5 0.5125 1 0.467; 4 0.463; 8 0.5404	1 0.6 6 0.4 3 0.3 3 0.2 4 0.4 4 0.6 6 0.5 6 0.5 2 0.2 0.6 2 0.6 4 0.6	Fequilia (1986) 1880 1880 1880 1880 1880 1880 1880 188	0.61 0.62 0.50 0.37 0.39 0.50 0.20 0.38	78 27 78 26 40 55 65 36 10 16 61	0.233 0.300 0.163 0.017 0.233 0.024 -0.500 0.623	48 54 08 20 71 74 41 00 13 27	0.009 0.010 0.010 0.000 0.010 0.010 0.010	98 03 04 79 07 90 03 04 95 98	85 76 79 110 78 75 62 63 57	8 16 14 24 3 8 4 0	1 1 2 4 1 2	0.9043 0.8172 0.8316 0.7971 0.9512 0.8824 0.9118 0.9844 0.8028	0.0851 0.1720 0.1474 0.1739 0.0366 0.0941 0.0588 0.0000 0.1549	0.0106 0.0108 0.0211 0.0290 0.0122 0.0235 0.0294 0.0156 0.0423

					$\mathbf{C}$	omn	nunit	y sm	ells:	Pear	son's	s co	rrela	$\mathbf{tion}$	( Vag	grant	; )							
	devs			ml.code.devs	perc.ml.	nerc code only devs	perc.ml.co	uods	ratio.sponsored	suods	ratio.sponsored.core		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	0.85	0.76	0.70	0.68	-0.07	0.07	7 0.05	0.57	-0.06	0.81	0.60	-	0.90	0.80	0.92	-	-	-0.08	-	1.00	-0.11	-0.76	-0.68	-0.40
prima.donnas	0.00	0.10	- 0.49	- 0.07	0.49	0.4		0.91	0.00	0.10	- 0.00	-	- 0.10	- 0.05	- 0.00	-	-	-	-	-	- 0.00	- 0.10	- 0.07	- 0.20
radio.silence black.cloud	-0.22	-0.10	-0.43	-0.07	0.43	-0.44	4 0.17	-0.31	-0.26	-0.10	-0.00	-	-0.10	-0.05	-0.26	-0.08	-	-	-	-0.09	-0.36	0.10	0.07	0.30
missing.links	0.86	0.77	0.70	0.69	-0.07	0.06	 6 0.07	0.57	-0.06	0.81	0.59	_	0.90	0.80	0.92	1.00	_	-0.09	_	_	-0.10	-0.75	-0.68	-0.40
		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	pode 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	-
	g.silo	-0.70	-0.73	-0.47	0.01	0.08	-0.27	0.12	-0.82	-0.56	-0.29	-0.46	-0.29	0.40	0.29	-0.61	L C	).78 (	0.92	0.71	-0.71	0.72	0.23	
prima.do radio.si		-0.16	-0.30	0.37	-0.58	0.91	-0.36	-0.21	0.34	0.64	0.58	0.52	-0.75	6 -0.50	-0.79	0.57	- 7 _0	- ).05 -(	0.28	-0.11	0.49	-0.49	-0.16	
18010.51	ICIICC	0.10	0.00	0.01	0.00	0.31	0.00	0.21	0.04	0.04	0.00	0.02	-0.10	, -0.50	-0.13	0.01	, -C	<i></i> -(	J.40	0.11	0.43	0.43	0.10	

0.15 -0.82 -0.57 -0.28 -0.46 -0.28

0.40

0.29 - 0.61

0.78

0.91

0.72

-0.71

0.25

0.72

black.cloud

missing.links -0.69 -0.72 -0.46

 $0.03 \quad 0.07 \quad -0.26$ 

Community smells: Pearson's correlation - p-values ( Vagrant )																								
	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	0.00	0.00	0.01	0.02	0.82	0.82	0.87	0.05	0.86	0.00	0.04	-	0.00	0.00	0.00	-	-	0.80	-	0.00	0.74	0.00	0.02	0.23
prima.donnas	- 10		- 0.10	-	- 0.10	- 0.15	-	-	- 0.40	-	1.00	-	-	-	- 0 41	- 0.00	-	-	-		-	- 70	-	- 0.00
radio.silence	0.49	0.76	0.16	0.82	0.16	0.15	0.60	0.33	0.42	0.75	1.00	-	0.75	0.87	0.41	0.80	-	-	-	0.78	0.24	0.76	0.83	0.38
black.cloud	0.00	0.00	0.01	0.01	0.94	0.05	0.84	0.05	0.05	0.00	0.04	-	0.00	0.00	0.00	0.00	-	0.79	-	-	0.76	0.00	0.02	0.22
missing.links	0.00	0.00	0.01	0.01	0.84	0.85	0.84	0.05	0.85	0.00	0.04		0.00	0.00	0.00	0.00		0.78		-	0.76	0.00	0.02	0.23
		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	argic.				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	0.02	0.01	0.15	0.98	0.79	0.39	0.71	0.00	0.06	0.37	0.13	3 0.3	7 0.2	0 0.3	$\overline{0}$ .	04	0.00	0.00	0.01	0.01	0.01	0.47	
prima.do	onnas	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	

 $missing.links \quad 0.02 \quad 0.01 \quad 0.15 \quad 0.93 \quad 0.83 \quad 0.42 \quad 0.65 \quad 0.00 \quad 0.05 \quad 0.38 \quad 0.13 \quad 0.38 \quad 0.19 \quad 0.36 \quad 0.04 \quad 0.00 \quad 0.00 \quad 0.01 \quad 0.01 \quad 0.01 \quad 0.44$ 

 $0.09 \quad 0.01 \quad 0.09 \quad 0.00 \quad 0.06 \quad 0.88 \quad 0.39 \quad 0.72 \quad 0.11 \quad 0.10 \quad 0.61$ 

radio.silence 0.64 0.37 0.26 0.06 0.00 0.25 0.51 0.29 0.03 0.05

black.cloud

					$\mathbf{Co}$	mmu	nity	$\mathbf{smel}$	lls: S	pear	man	's c	orre	latio	n ( '	Vag	rant	)						
	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.sno prima.donnas	radio.silence	black.cloud	missing.links	st.congruence	communicability	global.turnover	code.turnover
org.silo	0.65	0.38	0.71	0.13	-0.23	0.22	-0.30	0.30	-0.00	0.75	0.65	-	0.66	0.40	0.90			-0.19	-	0.99	0.17	-0.71	-0.51	-0.46
prima.donnas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.4		-	-	-		-	-	-
radio.silence	-0.11	0.09	-0.09	-0.01	0.41	-0.34	0.16	-0.07	-0.11	-0.05	0.10	-	-0.06	0.05	-0.18	-0.1	.9 -	-	-	-0.17	-0.45	-0.18	0.01	0.06
black.cloud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	-	-	-	-
missing.links	0.63	0.36	0.75	0.16	-0.27	0.26	-0.26	0.28	-0.03	0.73	0.62	-	0.65	0.36	0.90	0.9	9 -	-0.17	-	-	0.11	-0.69	-0.54	-0.50
	.,	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			global.mod	mail.mod	code.mod	density	mail.only.core.devs	code.only.core.devs	ml.code.core.devs		ratio.code.only.core	so the missississississississississississississ	
	g.silo	-0.60	-0.38	-0.62	0.25	0.13	-0.39	-0.10	-0.87	-0.63	-0.65	-0.7	1 0.0	)4 ().	.56 (	0.55	-0.61	0.39	0.91	0.31	-0.88	0.90	-0.03	3
prima.do	onnas	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-

-0.20

0.91

-0.19

0.22

0.33 -0.90

-0.23

0.92

-0.19

0.00

-0.36

 $0.26 \quad 0.13 \quad -0.35 \quad -0.06$ 

-0.06

0.21

-0.87

0.09

-0.64

0.51

-0.64 -0.68

0.31

-0.54

0.09

-0.46

0.53

-0.58

0.58

0.07

-0.65

0.11

0.35

radio.silence -0.16

missing.links -0.62 -0.36 -0.64

black.cloud

-0.36

0.14

 $-0.74 \quad 0.83$ 

	Community smells: Spearman's correlation - p-values (Vagrant)																							
	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	0.02	0.22	0.01	0.68	0.47	0.50	0.34	0.34	0.99	0.00	0.02	-	0.02	0.20	0.00	_	-	0.56	-	0.00	0.61	0.01	0.11	0.15
prima.donnas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
radio.silence	0.74	0.79	0.77	0.96	0.18	0.28	0.61	0.83	0.74	0.88	0.76	-	0.86	0.89	0.57	0.56	-	-	-	0.60	0.14	0.58	0.98	0.87
black.cloud	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
missing.links	0.03	0.25	0.01	0.63	0.39	0.41	0.42	0.37	0.93	0.01	0.03	-	0.02	0.25	0.00	0.00	-	0.60	-	-	0.73	0.01	0.09	0.12
		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	ر مام 1 - آ				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	0.06	0.25	0.04	0.47	0.70	0.21	0.75	0.00	0.03	0.03	0.01	0.90	0.0	6 0.0	)7 0.	.03	0.21	0.00	0.32	0.00	0.00	0.94	
prima.de	onnas	-	-	-	_	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-	

 $0.51 \quad 0.78 \quad 0.09$ 

 $missing.links \quad 0.04 \quad 0.28 \quad 0.03 \quad 0.45 \quad 0.68 \quad 0.26 \quad 0.86 \quad 0.00 \quad 0.03 \quad 0.02 \quad 0.02 \quad 0.78 \quad 0.08 \quad 0.05 \quad 0.02 \quad 0.26 \quad 0.00 \quad 0.29 \quad 0.00 \quad 0.00 \quad 1.00 \quad 0.00 \quad 0.00$ 

 $0.33 \quad 0.07 \quad 0.13 \quad 0.05 \quad 0.83 \quad 0.74 \quad 0.54 \quad 0.56 \quad 0.49 \quad 0.48 \quad 0.56$ 

radio.silence 0.65 0.28 0.68 0.01 0.00 0.25 0.86

black.cloud