Report 13 06 2018

## Descriptive Statistics

The main dataset used has the follow Descriptive Statistics:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Mean | Standard Dev. | Median | Trimmed mean | Median Absolute Deviation | Min. | Max. | Range | Skewness | Kurtosis |
| **files\_has\_scad** | 0.1501 | 0.6598 | 0 | 0 | 0 | 0 | 35 | 35 | 13.09 | 371.7 |
| **tags\_has\_scad** | 0.03921 | 0.2195 | 0 | 0 | 0 | 0 | 9 | 9 | 7.571 | 101.4 |
| **comments\_count** | 1.143 | 4.104 | 0 | 0.3692 | 0 | 0 | 399 | 399 | 20.43 | 1095 |
| **collection\_count** | 17.34 | 58.71 | 2 | 6.938 | 2.965 | 0 | 2917 | 2917 | 14.28 | 355.1 |
| **downloads\_count** | 337.6 | 1376 | 95 | 163.6 | 109.7 | 0 | 140626 | 140626 | 44.55 | 3387 |
| **files\_count** | 2.687 | 4.728 | 2 | 1.869 | 1.483 | 0 | 373 | 373 | 21.73 | 1030 |
| **thing\_like\_count** | 14.09 | 48.64 | 2 | 5.7 | 2.965 | 0 | 2463 | 2463 | 15.07 | 390.9 |
| **made\_count** | 0.5478 | 3.56 | 0 | 0.07731 | 0 | 0 | 327 | 327 | 31.68 | 1722 |
| **remix\_count** | 0.7692 | 32.41 | 0 | 0 | 0 | 0 | 7149 | 7149 | 156.4 | 29392 |
| **remixed\_froms\_count** | 0.7407 | 1.32 | 0 | 0.5207 | 0 | 0 | 88 | 88 | 12.62 | 483.1 |
| **views\_count** | 1710 | 5409 | 579 | 894.5 | 689.4 | 0 | 600197 | 600197 | 29.39 | 1962 |
| **tags\_count** | 2.67 | 7.39 | 1 | 1.72 | 1.483 | 0 | 1032 | 1032 | 68.72 | 8053 |
| **Being\_featured** | 0.03443 | 0.1905 | 0 | 0 | 0 | 0 | 6 | 6 | 6.171 | 50.98 |
| **inv** | 0.7405 | 1.32 | 0 | 0.5205 | 0 | 0 | 88 | 88 | 12.62 | 483.2 |
| **out** | 0.7401 | 31.31 | 0 | 0 | 0 | 0 | 6923 | 6923 | 157.3 | 29657 |

The dataset contains 40049 unique authors across 2008-10-19 and 2014-07-02 upload dates and a total of 119143 observations. The next step was to find the factors based on the licenses using an agregatted dataset summarizing the variables by author and the Key periods (before 2012-09-24, between 2012-09-24 and 2013-11-05 and after 2013-11-05):

Then we used the sum scores by factor (DiStenfao, Zhu, and Mindrila, 2009) as follows:

* **Factor 1:** copyleft = licence4 + licence10 + licence11 + licence12 + licence 9
* **Factor 2:** anticompetition= licence3 +licence5 +licence7 (moral rights)
* **Factor 3:** anti\_social\_rivarly = licence2 + licence6
* **Factor 4:** collective\_rivalry = licence8 - licence1

comments\_count

collection\_count

downloads\_count

files\_count

thing\_like\_count

made\_count

remix\_count

remixed\_froms\_count

views\_count

out

tags\_count

copyleft

anticompetition

anti\_social\_rivarly

collective\_rivalry

All.Rights.Reserved

Attribution…Non.Commercial…No.Derivatives

Attribution…Non.Commercial…Share.Alike

BSD.License

Creative.Commons…Attribution

Creative.Commons…Attribution…No.Derivatives

Creative.Commons…Attribution…Non.Commercial

Creative.Commons…Attribution…Share.Alike

Creative.Commons…Public.Domain.Dedication

GNU…GPL

GNU…LGPL

Public.Domain

comments\_count

1.00

0.87

0.83

0.55

0.86

0.79

0.27

0.21

0.88

0.27

0.47

0.39

0.50

0.13

0.30

0.06

0.13

0.32

0.17

0.34

0.03

0.29

0.31

0.04

0.29

0.07

0.27

collection\_count

0.87

1.00

0.83

0.54

0.99

0.84

0.42

0.19

0.91

0.42

0.44

0.27

0.48

0.13

0.30

0.03

0.13

0.29

0.08

0.35

0.03

0.26

0.30

0.05

0.21

0.05

0.18

downloads\_count

0.83

0.83

1.00

0.59

0.82

0.79

0.31

0.22

0.91

0.31

0.47

0.38

0.45

0.08

0.30

0.06

0.08

0.27

0.09

0.37

0.02

0.19

0.31

0.05

0.30

0.07

0.26

files\_count

0.55

0.54

0.59

1.00

0.54

0.42

0.17

0.52

0.56

0.17

0.77

0.26

0.54

0.12

0.51

0.04

0.12

0.30

0.07

0.42

0.02

0.28

0.51

0.08

0.19

0.06

0.18

thing\_like\_count

0.86

0.99

0.82

0.54

1.00

0.84

0.42

0.19

0.90

0.42

0.44

0.27

0.47

0.13

0.30

0.03

0.13

0.28

0.09

0.34

0.03

0.26

0.30

0.05

0.21

0.05

0.18

made\_count

0.79

0.84

0.79

0.42

0.84

1.00

0.32

0.16

0.82

0.32

0.35

0.29

0.39

0.08

0.23

0.02

0.07

0.22

0.10

0.26

0.02

0.25

0.23

0.03

0.23

0.05

0.19

remix\_count

0.27

0.42

0.31

0.17

0.42

0.32

1.00

0.08

0.44

1.00

0.10

0.02

0.12

0.00

0.06

0.00

0.00

0.03

0.01

0.13

0.00

0.04

0.06

0.01

0.02

0.01

0.01

remixed\_froms\_count

0.21

0.19

0.22

0.52

0.19

0.16

0.08

1.00

0.22

0.08

0.32

0.10

0.45

0.01

0.42

-0.02

0.01

0.23

0.02

0.39

0.00

0.19

0.42

0.05

0.07

0.05

0.05

views\_count

0.88

0.91

0.91

0.56

0.90

0.82

0.44

0.22

1.00

0.44

0.47

0.34

0.48

0.10

0.30

0.05

0.10

0.28

0.11

0.38

0.02

0.23

0.31

0.05

0.27

0.06

0.22

out

0.27

0.42

0.31

0.17

0.42

0.32

1.00

0.08

0.44

1.00

0.10

0.02

0.12

0.00

0.06

0.00

0.00

0.03

0.01

0.13

0.00

0.04

0.06

0.01

0.02

0.01

0.01

tags\_count

0.47

0.44

0.47

0.77

0.44

0.35

0.10

0.32

0.47

0.10

1.00

0.25

0.41

0.12

0.33

0.07

0.12

0.29

0.04

0.30

0.02

0.19

0.33

0.04

0.20

0.05

0.17

copyleft

0.39

0.27

0.38

0.26

0.27

0.29

0.02

0.10

0.34

0.02

0.25

1.00

0.12

0.00

0.06

0.05

0.00

0.07

0.28

0.12

0.00

0.03

0.06

0.30

0.80

0.23

0.53

anticompetition

0.50

0.48

0.45

0.54

0.47

0.39

0.12

0.45

0.48

0.12

0.41

0.12

1.00

0.09

0.14

0.01

0.08

0.45

0.04

0.75

0.02

0.62

0.14

0.04

0.06

0.03

0.12

anti\_social\_rivarly

0.13

0.13

0.08

0.12

0.13

0.08

0.00

0.01

0.10

0.00

0.12

0.00

0.09

1.00

0.00

0.00

0.98

0.16

0.00

0.01

0.28

0.04

0.00

0.00

0.00

0.00

0.00

collective\_rivalry

0.30

0.30

0.30

0.51

0.30

0.23

0.06

0.42

0.30

0.06

0.33

0.06

0.14

0.00

1.00

-0.12

0.00

0.07

0.00

0.12

0.00

0.06

1.00

0.02

0.04

0.01

0.05

All.Rights.Reserved

0.06

0.03

0.06

0.04

0.03

0.02

0.00

-0.02

0.05

0.00

0.07

0.05

0.01

0.00

-0.12

1.00

0.00

0.01

0.01

0.01

0.00

0.00

-0.03

-0.01

0.03

0.01

0.06

Attribution…Non.Commercial…No.Derivatives

0.13

0.13

0.08

0.12

0.13

0.07

0.00

0.01

0.10

0.00

0.12

0.00

0.08

0.98

0.00

0.00

1.00

0.16

0.00

0.01

0.07

0.03

0.00

0.00

0.00

0.00

0.00

Attribution…Non.Commercial…Share.Alike

0.32

0.29

0.27

0.30

0.28

0.22

0.03

0.23

0.28

0.03

0.29

0.07

0.45

0.16

0.07

0.01

0.16

1.00

0.02

0.07

0.01

0.08

0.07

0.02

0.05

0.03

0.04

BSD.License

0.17

0.08

0.09

0.07

0.09

0.10

0.01

0.02

0.11

0.01

0.04

0.28

0.04

0.00

0.00

0.01

0.00

0.02

1.00

0.05

0.00

0.00

0.01

0.01

0.02

0.01

0.03

Creative.Commons…Attribution

0.34

0.35

0.37

0.42

0.34

0.26

0.13

0.39

0.38

0.13

0.30

0.12

0.75

0.01

0.12

0.01

0.01

0.07

0.05

1.00

0.01

0.08

0.12

0.03

0.05

0.02

0.13

Creative.Commons…Attribution…No.Derivatives

0.03

0.03

0.02

0.02

0.03

0.02

0.00

0.00

0.02

0.00

0.02

0.00

0.02

0.28

0.00

0.00

0.07

0.01

0.00

0.01

1.00

0.03

0.00

0.01

0.00

0.00

0.01

Creative.Commons…Attribution…Non.Commercial

0.29

0.26

0.19

0.28

0.26

0.25

0.04

0.19

0.23

0.04

0.19

0.03

0.62

0.04

0.06

0.00

0.03

0.08

0.00

0.08

0.03

1.00

0.06

0.03

0.01

0.01

0.03

Creative.Commons…Attribution…Share.Alike

0.31

0.30

0.31

0.51

0.30

0.23

0.06

0.42

0.31

0.06

0.33

0.06

0.14

0.00

1.00

-0.03

0.00

0.07

0.01

0.12

0.00

0.06

1.00

0.02

0.04

0.01

0.05

Creative.Commons…Public.Domain.Dedication

0.04

0.05

0.05

0.08

0.05

0.03

0.01

0.05

0.05

0.01

0.04

0.30

0.04

0.00

0.02

-0.01

0.00

0.02

0.01

0.03

0.01

0.03

0.02

1.00

0.03

0.01

0.03

GNU…GPL

0.29

0.21

0.30

0.19

0.21

0.23

0.02

0.07

0.27

0.02

0.20

0.80

0.06

0.00

0.04

0.03

0.00

0.05

0.02

0.05

0.00

0.01

0.04

0.03

1.00

0.08

0.11

GNU…LGPL

0.07

0.05

0.07

0.06

0.05

0.05

0.01

0.05

0.06

0.01

0.05

0.23

0.03

0.00

0.01

0.01

0.00

0.03

0.01

0.02

0.00

0.01

0.01

0.01

0.08

1.00

0.03

Public.Domain

0.27

0.18

0.26

0.18

0.18

0.19

0.01

0.05

0.22

0.01

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0.53

0.12

0.00

0.05

0.06

0.00

0.04

0.03

0.13

0.01

0.03

0.05

0.03

0.11

0.03

1.00

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Mean | Standard Dev. | Median | Trimmed mean | Median Absolute Deviation | Min. | Max. | Range | Skewness | Kurtosis |
| **comments\_count** | 2.889 | 15.59 | 0 | 0.5837 | 0 | 0 | 813 | 813 | 21.84 | 755.4 |
| **collection\_count** | 43.91 | 234.8 | 2 | 10.31 | 2.965 | 0 | 16247 | 16247 | 26.32 | 1183 |
| **downloads\_count** | 855.4 | 4542 | 114 | 246.9 | 137.9 | 0 | 354822 | 354822 | 27.4 | 1336 |
| **files\_count** | 6.836 | 21.05 | 2 | 3.556 | 1.483 | 0 | 1811 | 1811 | 32.79 | 2241 |
| **thing\_like\_count** | 35.68 | 194.1 | 2 | 8.364 | 2.965 | 0 | 13771 | 13771 | 26.54 | 1206 |
| **made\_count** | 1.386 | 11.48 | 0 | 0.1333 | 0 | 0 | 878 | 878 | 35.07 | 1949 |
| **remix\_count** | 1.962 | 70.77 | 0 | 0.02719 | 0 | 0 | 12929 | 12929 | 141.2 | 24400 |
| **remixed\_froms\_count** | 1.889 | 5.197 | 1 | 1.03 | 1.483 | 0 | 525 | 525 | 30.09 | 2364 |
| **views\_count** | 4334 | 21164 | 634 | 1370 | 782.8 | 0 | 1704297 | 1704297 | 30.36 | 1701 |
| **out** | 1.888 | 68.46 | 0 | 0.02549 | 0 | 0 | 12520 | 12520 | 141.6 | 24505 |
| **tags\_count** | 6.781 | 33.35 | 1 | 2.88 | 1.483 | 0 | 4788 | 4788 | 74.37 | 9508 |
| **copyleft** | 0.1338 | 0.9787 | 0 | 0 | 0 | 0 | 69 | 69 | 26.09 | 1190 |
| **anticompetition** | 1.159 | 2.63 | 1 | 0.6919 | 1.483 | 0 | 182 | 182 | 15.35 | 635.7 |
| **anti\_social\_rivarly** | 0.02547 | 0.3535 | 0 | 0 | 0 | 0 | 43 | 43 | 58.62 | 5774 |
| **collective\_rivalry** | 1.19 | 2.215 | 1 | 0.792 | 1.483 | -15 | 106 | 121 | 8.473 | 185.9 |
| **All.Rights.Reserved** | 0.01618 | 0.2072 | 0 | 0 | 0 | 0 | 15 | 15 | 28.59 | 1324 |
| **Attribution…Non.Commercial…No.Derivatives** | 0.02162 | 0.3406 | 0 | 0 | 0 | 0 | 43 | 43 | 64.09 | 6657 |
| **Attribution…Non.Commercial…Share.Alike** | 0.1574 | 0.9471 | 0 | 0 | 0 | 0 | 78 | 78 | 26.61 | 1385 |
| **BSD.License** | 0.009155 | 0.2419 | 0 | 0 | 0 | 0 | 39 | 39 | 103.6 | 15156 |
| **Creative.Commons…Attribution** | 0.7291 | 1.783 | 0 | 0.4042 | 0 | 0 | 93 | 93 | 12.91 | 386.8 |
| **Creative.Commons…Attribution…No.Derivatives** | 0.003847 | 0.07451 | 0 | 0 | 0 | 0 | 5 | 5 | 28.16 | 1151 |
| **Creative.Commons…Attribution…Non.Commercial** | 0.2724 | 1.406 | 0 | 0.067 | 0 | 0 | 171 | 171 | 47.82 | 4893 |
| **Creative.Commons…Attribution…Share.Alike** | 1.206 | 2.2 | 1 | 0.7932 | 1.483 | 0 | 106 | 106 | 8.693 | 191.1 |
| **Creative.Commons…Public.Domain.Dedication** | 0.02663 | 0.2542 | 0 | 0 | 0 | 0 | 16 | 16 | 22.41 | 897.2 |
| **GNU…GPL** | 0.06432 | 0.7146 | 0 | 0 | 0 | 0 | 69 | 69 | 43.63 | 3204 |
| **GNU…LGPL** | 0.007178 | 0.152 | 0 | 0 | 0 | 0 | 15 | 15 | 46.04 | 3195 |
| **Public.Domain** | 0.0265 | 0.4251 | 0 | 0 | 0 | 0 | 39 | 39 | 42.89 | 2820 |