A well of loneliness : diversity among leading Linux kernel developers (2005-2020)

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abstract Fifteen years of Linux kernel development are reviewed from the point of view of gender diversity. Study based on total commits (as opposed to e.g. mailing list participation) : $\geq 1,400$, corresponding to top 50 Linux kernel developers (including Linus Torvalds).

Table 1 – Diversity among Linux kernel developers (2005-2020)

		commits		
1	tiwai	6,207	Takashi Iwai	m
2	ickle	5,401	?	?
3	arndb	4,633	Arnd Bergmann (?)	m (?)
4	jumberg	4,435	Johannes Berg (?)	m (?)
5	gregkh	4,344	Greg Kroah-Hartman	m
6	bigguiness	4,196	H Hartley Sweeten	m
7	htejun	4,132	Tejun Heo	m
8	broonie	4,060	Mark Brown	m
9	mchehab	3,988	Mauro Carvalho Chehab	m
10	morimoto	3,387	Kuninori Morimoto	m
11	davem330	3,217	David S. Miller	m
12	danvet	3,187	Daniel Vetter	m
13	JoePerches	3,131	Joe Perches (?)	m (?)
14	skeggsb	3,115	Ben Skeggs (?)	m (?)
15	vsyrjala	3,102	Ville Syrjala (?)	m (?)
16	linusw	2,971	Linus Walleij	m
17	AxelLin	2,929	Axel Lin	m
18	ColinIanKing	2,676	Colin Ian King	m
19	dhowells	2,452	David Howells (?)	m (?)
20	bzolnier	2,424	Bartlomiej Zolnierkiewicz (?)	m (?)
21	jwrdegoede	2,316	Hans de Goede	m
22	larsclausen	2,302	Lars-Peter Clausen	m
23	andy-shev	2,288	Andy Shevchenko	m
24	jhovold	2,146	Johan Hovold	m
25	ralfbaechle	2,123	Ralf Baechle	m
26	masahir0y	2,060	Masahiro Yamada	m
27	ebiederm	1,934	Eric Biederman (?)	m (?)
28	AdrianBunk	1,914	Adrian Bunk	m
29	paulmck	1,847	Paul E. McKenney	m
30	heicarst	1,819	Heiko Carstens (?)	m (?)
31	vireshk	1,752	Viresh Kumar	m
32	herbertx	1,732	Herbert Xu	m
33	ffainelli	1,730	Florian Fainelli	m
34	groeck	1,691	Guenter Roeck	m
35	hverkuil	1,676	Hans Verkuil (?)	m (?)
36	tmlind	1,656	Tony Lindgren	m
37	torvalds	1,595	Linus Torvalds	m
38	kees	1,575	Kees Cook	m
39	jankara	1,554	Jan Kara	m
40	ozbenh	1,543	Benjamin Herrenschmidt	m
41	chucklever	1,507	Chuck Lever	m

42	neilbrown	1,501	Neil Brown	m
43	mripard	1,473	Maxime Ripard	m
44	mpe	1,471	Michael Ellerman	m
45	pinchartl	1,456	Laurent Pinchart (?)	m (?)
46	krzk	1,456	Krzysztof Kozlowski	m
47	ian-abbott	1,444	Ian Abbott	m
48	kaber	1,427	Patrick McHardy	m
49	GustavoARSilva	1,426	Gustavo A. R. Silva	m
50	djbw	1,416	Dan Williams	m

Table 1: “...to master, excluding merge commits” /torvalds/linux/

Measured 05/02/20 c. 9.40 am (no refresh)

Gender was identified based on names, photos, user names, 'Linux kernel report', mailing lists, commit messages...

An error would have consisted to give for time period "2002-2020" — otherwise indicated by Github. As the *Linux kernel developer report* makes additionally clear : the "git era" of Linux kernel development starts in 2005¹ (git was released that year...).

Table 2 – Aggregated results

Gender	n	Percentage
Female	0	0%
Male	50	100%

Table 2: Diversity among top 50 Linux kernel developers (2005-20)

¹"the beginning of the git era (the 2.6.11 release in 2005)". Linux Foundation 2017 : 11.

Table 3 – Diversity among Linux kernel developers (2005-2017)

Name	“Changes” / %	
H Hartley Sweeten	6,034 0.9%	m
Al Viro	5,904 0.9%	m
Takashi Iwai	5,089 0.8%	m
Mauro Carvalho Chehab	5,039 0.8%	m
David S. Miller	4,044 0.6%	m
Johannes Berg	4,014 0.6%	m
Mark Brown	3,978 0.6%	m
Tejun Heo	3,951 0.6%	m
Russell King	3,692 0.6%	m
Greg Kroah-Hartman	3,593 0.6%	m
Thomas Gleixner	3,582 0.6%	m
Christoph Hellwig	3,498 0.5%	m
Hans Verkuil	3,419 0.5%	m
Ingo Molnár	3,128 0.5%	m
Chris Wilson	3,090 0.5%	m
Arnd Bergmann	3,071 0.5%	m
Geert Uytterhoeven	3,011 0.5%	m
Dan Carpenter	2,994 0.5%	m
Eric Dumazet	2,988 0.5%	m
Joe Perches	2,937 0.5%	m
Alex Deucher	2,757 0.4%	m
Daniel Vetter	2,688 0.4%	m
Laurent Pinchart	2,687 0.4%	m
Axel Lin	2,670 0.4%	m
Trond Myklebust	2,554 0.4%	m
Ben Skeggs	2,516 0.4%	m
Arnaldo Carvalho de Melo	2,456 0.4%	m
Bartłomiej Zolnierkiewicz	2,331 0.4%	m
Kuninori Morimoto	2,300 0.4%	m
Linus Walleij	2,281 0.4%	m

Source (except gender) : ” *Top 30 kernel developers, 2.6.11-4.13*” Linux Foundation 2017

Table 4 – Aggregated results

Gender	n	Percentage
Female	0	0%
Male	30	100%

Table 4: Diversity among top 30 Linux kernel developers (2005-17)

References

- "Linux kernel source tree". <https://github.com/torvalds/linux/graphs/contributors> ("Contributions to master, excluding merge commits")
- Linux Foundation. 2017. "Linux kernel development report".