Biography of an Influential Software Engineer: Richard Stallman

Richard Stallman born March 16th, 1953 is an American software freedom activist, hacker and software developer. He is also the founder, lead architect and project organiser of the GNU Project which was launched in September 1983 with the aim of creating a free Unix-like Operating System. Alongside this he also began a free software movement and founded the Free Software Foundation in October 1985 and in 1989 co-founded the League for Programming Freedom.

Stallman was one of the first software developers to adhere to the concept of copyleft whereby anyone was free to redistribute copies and modified versions of the software which he developed. As a result of these early efforts he now holds authorship of several copyleft licenses including the widely used GNU General Public License. Since the mid-1990s, Stallman has spent the majority of his time campaigning for free software and against software patents and copyright laws. He is also the creator of Emacs, the GNU Compiler and the GNU Debugger which continue to be widely used to this day.

Stallman's first contact with the world of programming happened the summer after his graduation from high-school where he was hired by IBM and where we wrote his first program, a pre-processor for the PL/I programming language on the IBM 360. His following experience came in the form of the MIT AI Laboratory which he joined in June 1971 as a first year undergraduate studying Physics. It was here that Stallman became a figure of the hacking community where he was better known as "rms".

Nine years later in 1980, Stallman had an experience which would completely change the way he thought about software. After modifying an older model of a Xerox printer (with the help of some other "hackers" from the AI Lab) to electronically message the user when a printing job had concluded and to message all logged-in users when the printer was jammed, Stallman wanted to bring this functionality to the newest model the Xerox 9700. However Stallman and his group of "hackers" from MIT were refused the source code for the Xerox 9700 and ultimately were not able to modify it.

After this experience Stallman began to argue that software users should have the freedom to “share with their neighbour” and be able to study and make changes to it. In his own words, he deems that attempts made by proprietary software vendors to prohibit these kinds of actions to be “antisocial” and “unethical”. Furthermore Stallman clarified that this freedom was vital as a moral value for users and society at large and not just for developing potentially better software. As a result, Stallman quit his job at MIT to devote himself to the GNU project. It was using the development tools created by the GNU project that allowed Finnish student Linus Torvalds to create the Linux kernel and to then port all existing GNU project software and combine it with the kernel to create the Linux operating system.

Stallman’s influence on the software engineering community can be felt even to this day, as he continues to dedicate his time to advocating for free software and working on the GNU Project. The impact that he’s had since the 80s continues to be felt nowadays as open source project become more and more common. It is my belief that if it weren’t for Stallman’s radical ideas (at the time) then presently big companies such as Microsoft would not be investing into the open source community at all. All big open source projects such as Electron, Visual Studio Code and React Native would simply not be as big and perhaps not even possible were it not for the movement started by Stallman.

Furthermore as mentioned previously without the many developer tools and other software included in the GNU Project, one of the most widely used operating systems Linux would have never been created. This OS alongside other software such as Emacs is still to this day is still sworn by many to be software of the highest quality, unlike any other made since.

Although controversial at times I think a voice and personality akin to that of Stallman’s is required in the community to at the very least start bigger conversations and get people to think past profits and revenue. It is these kinds of “rebels” in communities that can start movements and truly make a difference and change many people’s perspectives. His amount of passion and dedication to programming although seemingly unhealthy is admirable and not something the majority of people could pull off (or should).

In conclusion although polarising to some, it takes but a quick glance at Stallman’s achievements to see how much positive impact he has had on the software engineering community at large for many decades. Whether you like him or not, Richard Stallman is a 10x engineer through and through.

References

http://www.computinghistory.org.uk/det/1794/Richard-Stallman/

https://www.britannica.com/biography/Richard-Stallman

https://en.wikipedia.org/wiki/Richard_Stallman