Who is Richard Matthew Stallman?

Otherwise known as RMS, he is the founder of the GNU project and the creator of several ubiquitous pieces of software. He's also renowned for his work in promoting "free" software that does not violate the privacy or freedom of it's user.

Background

Stallman originally began programming when he was in high school working on a numerical analysis program in Fortran. After completing the task in several weeks he then swore never to write code in Fortran again. He then went on to pursue a degree in physics in Harvard and began working in the MIT Artificial Intelligence Laboratory. He worked on various projects in the MIT AI Lab and famously managed to decrypt the passwords to the MIT CS Labs. He then sent users their decoded passwords and suggested they change it to the empty string so that they would be able to login anonymously. This would be the beginning of Stallman's efforts to encourage the use of free software.

What has he ever done for us?

Stallman eventually left MIT to begin work on the GNU project after a series of incidents convinced him that a free operating system would be needed. GNU would be that free operating system and would be compatible with Unix. He contributed many tools which are used incredibly frequently even to this day. Examples of work that he contributed to the project include Emacs, one of the world's most popular text editors, GCC (GNU Compiler Collection) one of the most popular compilers, and GNU Make, a build automator that sees widespread use. The main piece missing was a kernel.

The operating system commonly known as Linux uses the GNU Operating System with the Linux kernel. Richard Stallman is often keen to clarify that Linux should really be called GNU/Linux (GNU slash Linux) to recognise the contributions made by the GNU project and its free software philosophy. He feels that not including the GNU in the title removes the operating system from its free software roots.

He also (thankfully) came up with the name POSIX for the family of standards from the IEEE Computer Society. The name under consideration at the time was "IEEEIX" which is in no way pronounceable.

Overall Stallman has had an incredible impact on the field of software engineering. He's created a wide variety of tools that are still used and maintained today by thousands of developers.

However, that's not what Stallman has been known for recently. In the past decade or so he has actually stopped programming on any regular basis. So what has been his contribution? RMS has pivoted from working as a software engineer and OS developer to working as a political activist.

As a somewhat stubborn individual this has led him into many clashes with various groups based on what he believes is the morally correct future for software. He fully believes that the privacy of the user and their ability to modify their hardware/software is paramount. This is different from open source development (as he is very careful to point out) as he views that as a software design philosophy rather than a moral one. He also believes that software should be free as in freedom but not necessarily zero price.

In the early 1980s he started the Free Software Foundation to further these aims and wrote the GPL (GNU Public License) which is one of the most widely used free software licenses. The Free Software Foundation provides many services for people looking to work with free software, for example they keep a list of all OS' that respect the user's freedom and provide advice on various licensing issues.

Stallman opposes various developments in modern life, for example he strongly opposes the usage of Javascript in websites and refuses to use any service that runs a non-trivial amount of Javascript, particularly if he cannot inspect it himself. He believes that asking people to identify themselves to use services or attend his talks is a violation of their privacy and morally wrong.

One of RMS' key contributions is the idea of copyleft. In theory all software could be made free by putting it in the public domain but then there would be the chance that people could turn it into proprietary software after editing it. Thus the freedom of software must be protected somehow and this is where copyleft and the GPL come in. The software is copyrighted but can be shared, modified or distributed at will, so long as the same clause is kept in the new version. In this way the software and its code will forever be free.

Versions of the GPL also exist for code being run on servers, libraries and manuals or textbooks that wish to be copyleft.

RMS has expressed admiration for Snowden and his whistleblowing activities, most notably via his emails which all start with the following heading:

"To any NSA and FBI agents reading my email: please consider whether defending the US Constitution against all enemies, foreign or domestic, requires you to follow Snowden's example."

He frequently gives talks on various topics to do with free software and the dangers of copyright around the world. This is also accompanied by a lengthy, intriguing and bizarrely specific rider of speaking demands which can be viewed in full here.

Summary

RMS is a peculiar and particular individual but one thing that cannot be denied is the scale of his contributions to software engineering. How many hours of work have been saved by the efficiency of text editing in Emacs? By the incredibly helpful error messages of GCC? By the automation of various tasks through makefiles? Some people view his stances on free software and different political points as extreme and silly but he is clearly someone who deeply cares about the future of software and the world.