

# **Biography of an influential Software Engineer**

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## **Introduction**

Writing this short biography on an influential software engineer has allowed me to dig around and explore who has made contribution to software engineering and to the field of computer science as a whole. To decide on who to write about, I had to identify some base characteristics which this person would have to fulfill:

- The person would have to have made a significant contribution to society as a whole through the advancements that they made in their respective area.
- The person would of had to revolutionize an industry and change it in a way where the industry from thereafter followed the innovative trend.
- For me, not picking an obvious choice is important in the effort of delivering a more interesting and novel report.

***“We should control the programs we use, not vice versa”***

## **My Choice**

The person I’ve chosen is Richard Stallman. I’m not sure how he is perceived by the computer science community as a whole but upon investigation I quickly realized that he has made a significant impact on usage and the open source nature of much of the software that we use today. I also appreciated the fact that he isn’t motivated by financial gain but only to maintain the transparency with regards to the source code of the software we use. His organisation is non-for-profit and he takes an unsalaried position as chairman. This is predominately why I took an interest in him.



## **Background**

Stallman was born and grew up in New York City. In 1970 he was accepted into Harvard University studying physics. He graduated in 1974 and went on to enroll in MIT as a graduate student. During this time he worked on some noteworthy projects including text editors TECO and Emacs and the Lisp operating system.

## GNU

The GNU project was the product of Stallman's ambition to create a free operating system that was compatible with unix. Quite ironically, GNU is a recursive acronym for "GNU is not unix", which arises from the fact that GNU looks and feels similar to unix but doesn't contain unix code. The most important thing to note about the GNU operating system is that it is perhaps the unsung hero of the what is widely know as Linux today. The correct name for the Linux operating system is in fact GNU/Linux with Linux being a kernel utilising GNU. Without this free software created by Stallman we wouldn't have the open source and community developed environment that is Linux which has transformed into the most stable and reliable operating system around today.

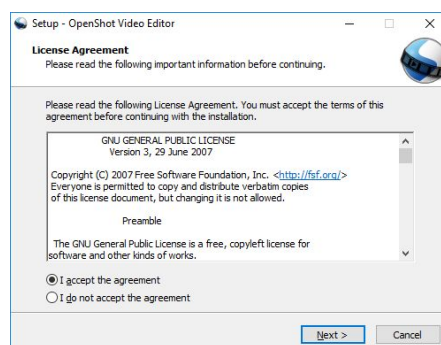


## Free software movement

The free software movement was the social movement that encompassed the GNU project. The ideology behind this movement was that every computer user would be liberated from the licensing restrictions placed on the software and software be free to be changed, edited and distributed by the user. Stallman was adamant that this would advance the field rather than be the detriment of it saying ***"IT MEANS THAT MUCH WASTEFUL DUPLICATION OF SYSTEM PROGRAMMING EFFORT WILL BE AVOIDED. THIS EFFORT CAN GO INSTEAD INTO ADVANCING THE STATE OF THE ART"***.

The group are involved in lobbying against software patents and in particular focus on government used software. This is to promote transparency between a country's population and their government. They predominantly spend their time writing a distributing free software. The term "copyleft" is a legal mechanism which, intuitively enough, seeks to protect the open source nature of the software.

He has travelled the world with the movement and has gone far and wide to promote the ideology of the group. Throughout the years he has made landmark breakthroughs in the promotion and use of open source software amongst government agencies. In India, he successfully lobbied the a governing body of India's states to switch all computers in their 12,500 high schools from licensed software, such as Windows, to open source.



Screenshot of an example of the GNU public license that I found when downloading an open source video editor.

### **Achievements/recognition**

Stallman has received many acclaims and worldwide recognition for both his contribution to the creation of Linux and his work with FSM.

He has received 13 honorary doctorates and 3 honorary professorships amongst many other awards.

### **Conclusion**

What really inspired me to write about Richard Stallman was the prophetic nature of his objections and the fact that the issues he had with the program using you rather than you using the program are becoming more and more prevalent today. Revelations around NSA shows us that often our devices are being used by the proprietors to gain information about the user.

I think his email prefix best sums up his disdain for any body or system that rejects his philosophy:

**“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.”**

— Richard Stallman, email prefix