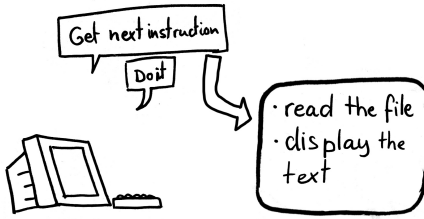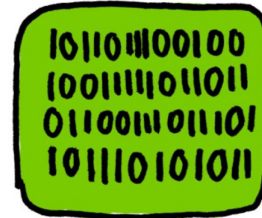# What is Software? What is Free Software?

Computers follow instructions

Humans create instructions by creating scripts as "source code". Computers turn the source code into an executable, which is the language of computers.

```
main()
{
printf("Hello,
world!\n");
}
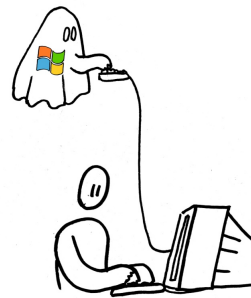```

### Source
(Human Readable)

### Executable
(Machine Readable)

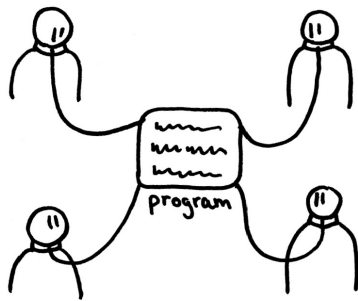Users assume they are in control of their computers...

Often, it is a company that writes the in- structions for programs that control user(s).
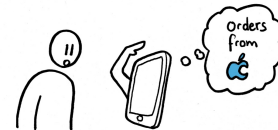
...However, the program may be controlling the user(s).

The program controls the users
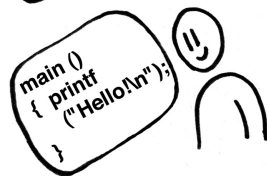
...or...

...and other companies.

Access to the source code is a prerequisite for the freedom to study as well as the freedom to modify.

The difference between the user being in control of the program or the program being in control of the user is whether or not the software is free--free as in freedom.
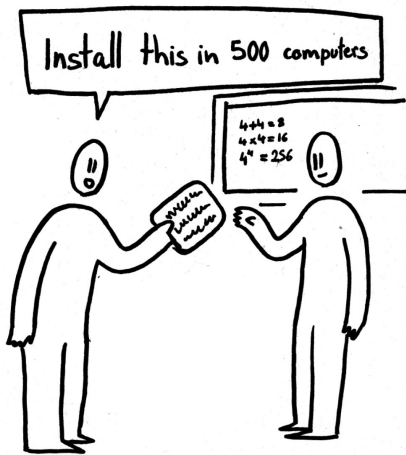
non free software:

free software:
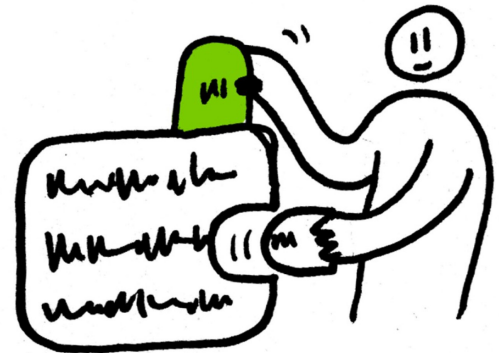
OUCH!

# Free Software: Four Freedoms

Freedom 0
Run it

The freedom to run the program as you wish, for any purpose (freedom 0).

The freedom to study how the program works, and change it so it does your computing as you wish (freedom 1). Access to the source code is a precondition for this.

Freedom 1 – change it

The freedom to redistribute copies so you can help others (freedom 2).

Freedom 2
Redistribute it

The freedom to distribute copies of your modified versions to others (freedom 3). By doing this you can give the whole community a chance to benefit from your changes. Access to the source code is a precondition for this.

Freedom 3
Redistribute with changes