10.8.3 Real anonymity??

No! You must be aware that internet browsing works thanks to a **physical network of connected machines**. A person with physical access to the different “connection points” will be able to observe the traffic and capture informations immediately, or to store this information for a further consultation.
In addition, computer monitoring is not the only way to identify you and your navigation: video surveillance of public or private places, labeling of machines “*for your safety*” are only examples of all the possibilities of the authorities and companies to access your valuable data.
It is up to everyone to define his “private life” and not spread it on the web ... Or to move on to more political than technical considerations for the Privacy Protection .

Anonymous

Basic Command Memo

A shell to rule them all

Debian GNU/Linux systems have all the graphical applications needed to perform your daily tasks, so why to use the command line?

- it's faster,
- not all options are present in the graphical interfaces,
- using the command line without GUI saves resources,
- it makes learning the Debian GNU/Linux system easier.

This section gathers some basic commands. For a more complete list, visit the Debian documentation: https://wiki.debian.org/ShellCommands.

11.1 Browse directories

```
#Command   #Action
#--------------------------------------------------------------------
pwd        Print Working Directory
cd foo     Change Directory to foo
cd         Change Directory to /home/$USER or ~/
cd ..      move up to the parent directory
ls foo     List information about file(s) in foo
ls -a      ls with hidden files displayed
ls -l      ls with size and rights
```

11.2 Action on files or directories

```
#Command                #Action
#-------------------------------------------------------------------
mv source target        move the file from source to target
cp source target        copy the file from source to target
cp -R source target     copy the directory source to target (recursively)
ln source link          create a hard link from source to link
ln -s source link       create a symbolic link from source to link
touch foo               create the file foo or update its
                        modification date
mkdir dirA              create the directory dirA
mkdir -p dirA/dirB      mkdir with creation of parent directory if needed
rm foo                  remove file foo
rm -f file              remove the write-protected file
rmdir dirA              remove the empty directory dirA
rm -R dirB              remove the directory dirB (recursively)
du -h file or dir       display size of the file or the dir
```

11.3 View/Compare files

```
#Command               #Action
#-------------------------------------------------------------------
wc file                Prints byte, word and line counts of file
cat file               displays the contents of a file
more file              displays file page by page. 'Space'=next page,
                       'Enter'=next line, 'u'=up
less file              displays file with fine navigation
                       Left/Right/Up/Down/PageUp/PageDown
head -n x file         displays 'x' first lines of file
tail -n x file         displays 'x' last lines of file
tail -f file           dynamicaly displays last line of file
diff file1 file2       Displays differences between two text files
diff -u file1 file2    Displays differences between file1 and file2 (patch syntax)
comp file1 file2       compares two binary files
comp file1 file2 n N   compares file1 from the octet n and file2 from octet N
```

11.4 Users and groups

```
#Command        #Action
#-------------------------------------------------------------------
whoami          Print the current user id and name
who             Print all usernames currently logged in
id              Print user and group id's (uid & gid)
```

```
id user          Print user and group id's (root only)
finger user      Print informations about user
write user       Print a message on user's terminal
tty              Print the current terminal's name
su - sudo        Switch to administrator mode, superuser
passwd           Change the password of the current user
adduser          add a user
deluser          delete a user
addgroup         add a group
delgroup         delete a group
```

11.5 Process

```
#Command             #Action
#-------------------------------------------------------------------
ps                   Process Status. Lists running process
ps ax                Print all running processes
ps aux               Print all process identified by users
pstree               Print all process in a tree
top                  List processes running on the system in a
                     semi-graphical table
kill signal pid      kill a process using its pid
pkill signal name    kill a process using its name
```

Signals used by *kill/pkill*

```
#Signal  #Mode    #Action
#-------------------------------------------------------------------
-1       HUP      Reload the process configuration file
-2       INT      Interrupt the process
-3       QUIT     Quit the process
-9       KILL     Kill the process (to avoid, try '-15' first)
-15      TERM     Complete the process properly
-18      STOP     Freeze the process
-20      CONT     Resume execution of a frozen process
```

11.6 Hardware

```
#Command                              #Action
#-------------------------------------------------------------------
lsusb                                 Lists connected USB devices
lspci                                 Lists connected PCI devices
cat /proc/cpuinfo                     Displays processor information
cat /proc/partitions                  Displays mounted partitions
lspci | egrep "3D|Display|VGA"        Display the graphics card model
lspci | grep -i "net" | cut -d: -f3   Show the Wifi card model
```

```
lspci | grep -i audio | cut -d: -f3  Show the soundcard model
```

11.7 Network

```
#Command              #Action
#-------------------------------------------------------------------
hostname              Print or set system name
ping machine          Send a ping to a machine on the network
traceroute machine    Displays a traceroute through machine
netstat               Displays the use of the network by the processes
netstat -a            Netstat with the display of the server processes
lsof                  Detailed list of file and network usage
ip address            Displays the config of the interfaces
route                 Displays the routing table
curl ifconfig.me      Displays public IP
```

Example: displays its locap IP on enp0s3

```
ip address show enp0s3 | grep "inet " | tr -s " " ":" | cut -d: -f3
```

11.8 Search

```
#Command/Option      #Action
#-------------------------------------------------------------------
locate pattern       Search for file with a pattern name
updatedb             Update locate database
find path options    Search for file corresponding to options in path
find -name pattern   Search for file with a pattern
find -type f/d/l     Search by filetype: f=file, d=directory, l=link
find -exec cmd       Execute *cmd* on the found files
```

Example: search for all *png* files in the 'Images' directory, then copy all files to *tmp* directory ('**{}**' stands for found files).

```
find $HOME/Images -name "*.png" -exec cp {} $HOME/tmp/ \;
```

11.9 Archives

```
#Format          #Compress                              #Extract
#-------------------------------------------------------------------
.tar.bz2, .tbz2  tar -cvjf archive.tar.bz2 directory    tar xvjf
.tar.gz, .tgz    tar -cvzf archive.tar.gz directory     tar xvzf
.bz2             bzip2 file                             bunzip2
```

```
.rar            -                                   unrar x
.gz             gzip file                           gunzip
.tar            tar -cvf archive.tar files          tar xvf
.zip            zip -r archive.zip files            unzip
.Z              compress files                      uncompress
.7z             7z a files                          7z x
.xz             xz -z directory                     unxz
```

11.10 Kernel

Version of the Linux kernel used, its name, the version of the compiler used:

```
cat /proc/version
```

Version of the Linux kernel used:

```
uname -r
```

List all kernels installed on your machine:

```
dpkg -l | egrep "linux-(header|image)"
```

11.11 Links and references

- Dedicated page on Debian-Facile (fr): https://debian-facile.org/doc:systeme:commandes:gnu_linux
- Dedicated Debian documentation: https://www.debian.org/doc/manuals/debian-reference/ch01.html
- Commands list: https://www.epons.org/commandes-base-linux.php
- Commands list on Debian wiki: https://wiki.debian.org/ShellCommands