

Introduzione al Software Libero

IPSIA – Fermo

26 Gennaio 2013

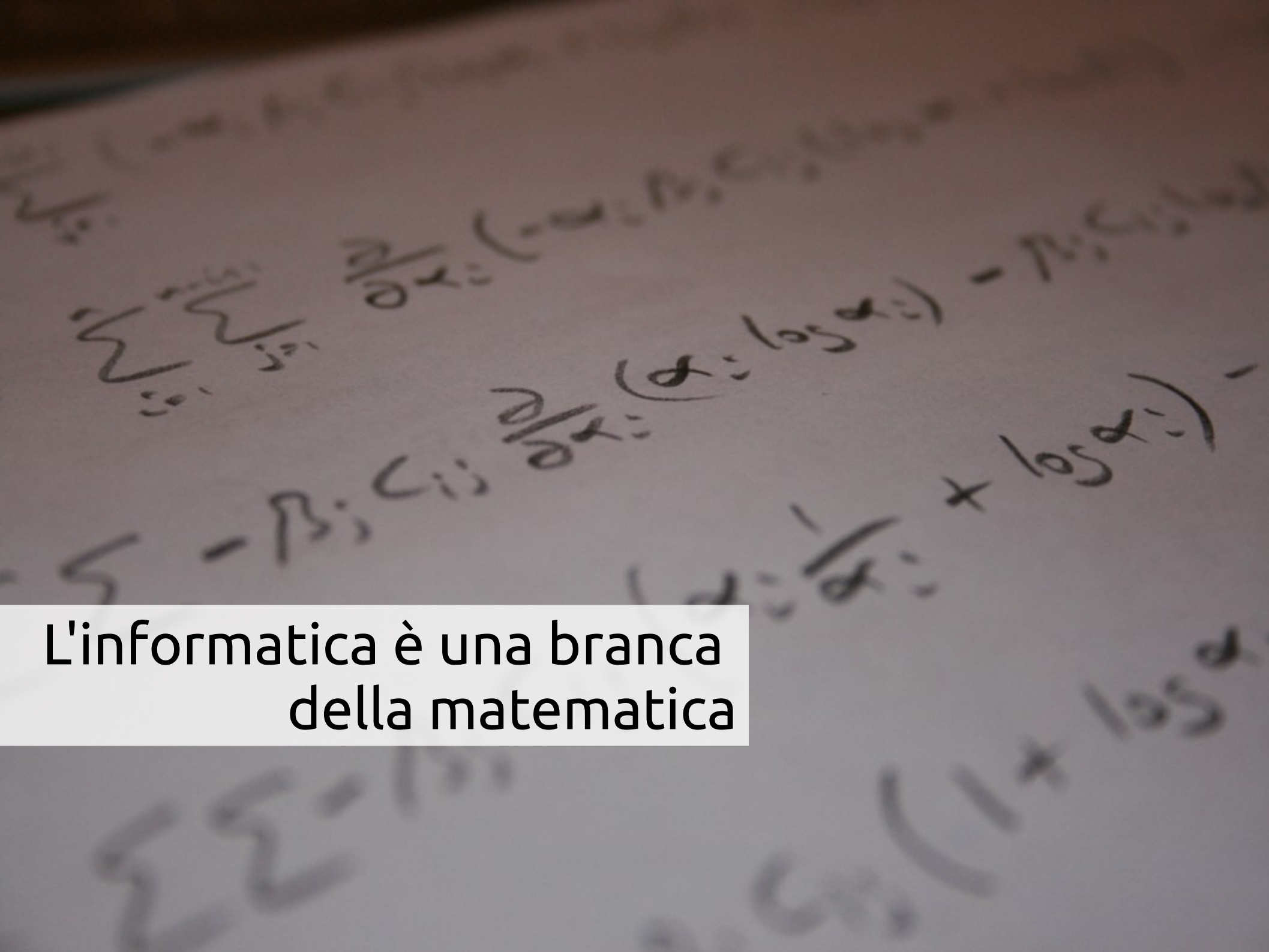
Andrea Colangelo

Ubuntu Developer
Debian Maintainer

Che cos'è
l'informatica?

PLATON 1.00

```
Get:51 http://ftp.us.debian.org lenny/main libxxf86misc 1:1.0.3-2 [30.0kB]
Get:52 http://ftp.us.debian.org lenny/main libxserver-utl 1:1.0.3-2 [30.0kB]
Get:53 http://ftp.us.debian.org lenny/main x11-xserver-utl 1:1.0.3-2 [30.0kB]
Get:54 http://ftp.us.debian.org lenny/main xauth 1:1.0.3-2 [26.6kB]
Get:55 http://ftp.us.debian.org lenny/main xbitmaps 1.0.1-2 [31.3kB]
Get:56 http://ftp.us.debian.org lenny/main xinit 1.0.9-2 [17.3+18 [27.0kB]
Get:57 http://ftp.us.debian.org lenny/main xbase-clients 1:7.3+18 [27.0kB]
Get:58 http://ftp.us.debian.org lenny/main xdm 1:1.1.8-5 [193kB]
Get:59 http://ftp.us.debian.org lenny/main libpaper1 1.1.23+nmu1 [28.6kB]
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Get:61 http://ftp.us.debian.org lenny/main a2ps 1:4.14-1 [927kB]
Get:62 http://ftp.us.debian.org lenny/main libaspell15 0.60.6-1 [603kB]
Get:63 http://ftp.us.debian.org lenny/main aspell 0.60.6-1 [290kB]
Get:64 http://ftp.us.debian.org lenny/main aspell-en 6.0-0-5.1 [249kB]
Get:65 http://ftp.us.debian.org lenny/main bzip2 1.0.5-1 [45.6kB]
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Get:67 http://ftp.us.debian.org lenny/main dbus 1.2.1-4 [227kB]
Get:68 http://ftp.us.debian.org lenny/main tk2.0-common 2.12.11-4 [51kB]
Get:69 http://ftp.us.debian.org lenny/main tk2.0-0 2.16.6-1 [756kB]
Get:70 http://ftp.us.debian.org lenny/main tk1.0-0 1.22.0-1 [79.2kB]
Get:71 http://ftp.us.debian.org lenny/main sfs2 2.1.0-5 [28.3kB]
Get:72 http://ftp.us.debian.org lenny/main s-0.0-0 1.0-4 [27.1kB]
Get:73 http://ftp.us.debian.org lenny/main libdirectfb-1.0-0 1.0.1-11 [1.245kB/s 5.2kB/s]
Get:74 http://ftp.us.debian.org lenny/main libdirectfb-1.0-0 978858/11401
```

The background of the image is a close-up of a piece of paper with handwritten mathematical formulas in dark ink. The formulas are somewhat blurry and include terms like $\frac{\partial}{\partial x}$, $\log(x)$, and $\frac{1}{x}$.

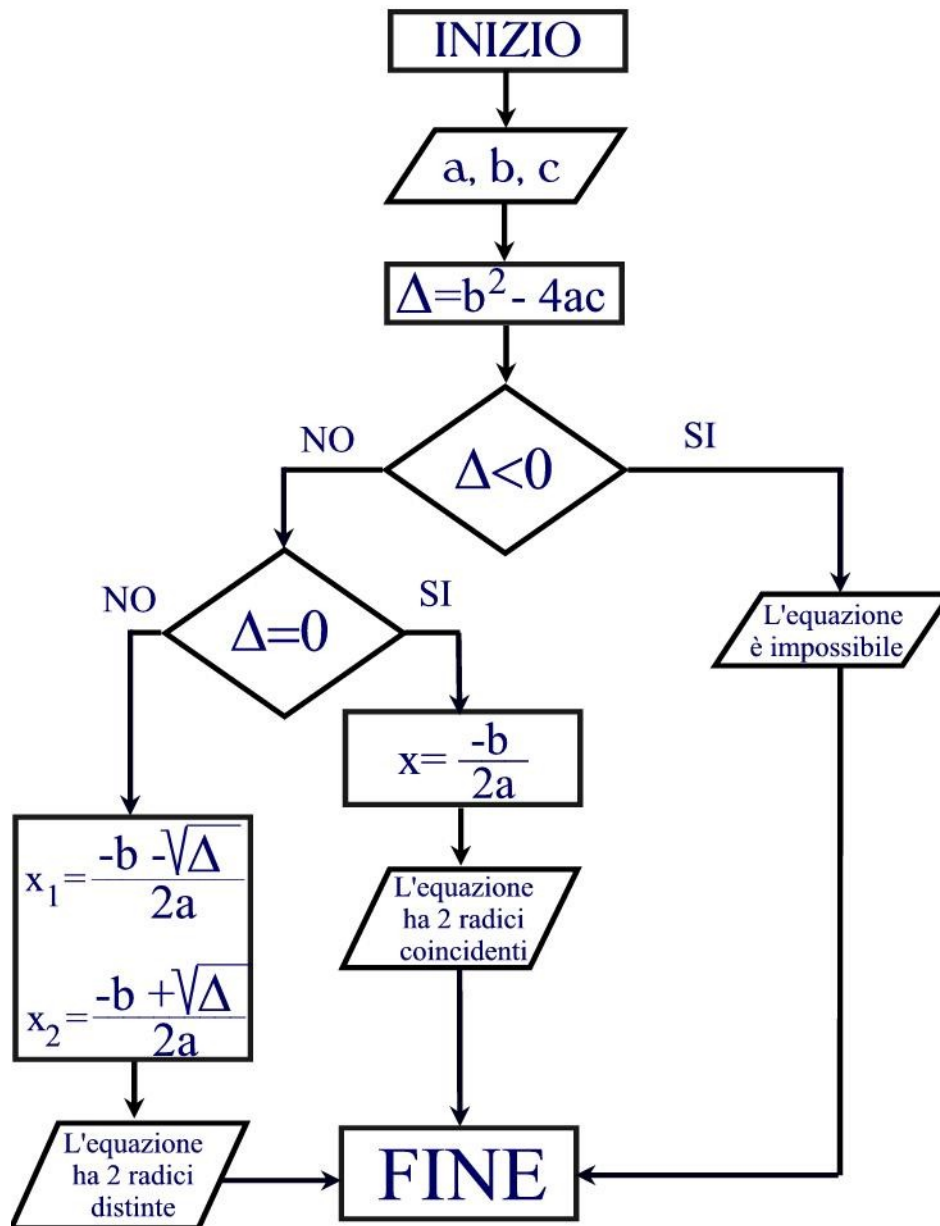
L'informatica è una branca
della matematica



L'informatica studia
l'informazione



*“L'hardware è tutto quello che puoi prendere a calci,
il software è tutto quello che puoi solo maledire.”*



Algoritmo
↓
Linguaggio
↓
Software

SANGIORGI & WALKER

The π -calculus

A Theory of Mobile Processes

CAMBRIDGE

Guzdial
Rose



Squeak

Open Personal Computing
and Multimedia

DYBVIK THE SCHEME PROGRAMMING LANGUAGE ANSI SCHEME

SECOND
EDITION



Nelson

Systems Programming with **Modula-3**



Learning Python

Lutz & Ascher



THIRD EDITION

Programming Perl

Wall,
Christiansen
& O'Reart



Miranda

The Craft of
Functional
Programming

Thompson

ULLMAN

ELEMENTS OF ML PROGRAMMING

ML97 EDITION



The Little MLer

Felleisen and Friedman



The Java™ Programming Language
Second Edition

Arnold
Gosling



Apple
PRESS



The Dylan
Reference Manual

Shalit

Addison
Wesley

STROUSTRUP



THE C++ PROGRAMMING LANGUAGE

THIRD
EDITION

KERNIGHAN • RITCHIE

THE C PROGRAMMING LANGUAGE

SECOND EDITION



ldman

Software Construction
and Data Structures with

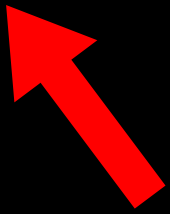
Ada 95



ADDISON
WESLEY

```
#!/usr/bin/python
# Copyright (C) 2013 Andrea Colangelo <warp10@ubuntu.com>
# Released under the terms of GNU GPL (see: http://www.gnu.org/licenses/gpl-3.0.txt)
```

```
import sys
import math
```



```
class Equation():
    def __init__(self, a, b, c):
        self.a, self.b, self.c = a, b, c
        self.delta = self.__calculate_delta()

    def __calculate_delta(self):
        return (self.b ** 2) - (4 * self.a * self.c)

    def solve(self):
        if self.delta < 0:
            print "No real solutions."
        elif self.delta == 0:
            print "Two coincident solutions: ", str(-self.b / (2 * self.a))
        else:
            sqrd_delta = math.sqrt(self.delta)
            print "First real solution: ", str((-self.b + sqrd_delta) / (2 * self.a))
            print "Second real solution: ", str((-self.b - sqrd_delta) / (2 * self.a))

if __name__ == "__main__":
    try:
        a, b, c = sys.argv[1:4]
        a, b, c = float(a), float(b), float(c)
    except:
        print "Three numerical coefficients required. Aborting.", sys.exit()
    equation = Equation(a, b, c)
    equation.solve()
```



Mele vs. Idee



All'improvviso uno sconosciuto:
Richard Stallman



A close-up photograph of a young child with curly hair, looking intently at a laptop screen. The child's face is the central focus, with their eyes and nose clearly visible. The laptop screen is in the foreground, partially obscuring the child's lower face. The background is blurred, showing a patterned surface and a person's arm. A white text box is overlaid on the left side of the image.

Libertà 0:
Utilizzo

Libertà 1: Studio





Libertà 2: Copia



Libertà 3:
Modifica

The image shows several thick stacks of US dollar bills, primarily \$100 bills, tied together with yellow rubber bands. The stacks are arranged in a slightly overlapping manner. Visible details on the bills include the portrait of Benjamin Franklin, the Federal Reserve seal, and the text 'THIS NOTE IS LEGAL TENDER FOR ALL DEBTS, PUBLIC AND PRIVATE'. The serial number 'DJ 36397802 A' is visible on one of the bills. The text 'Libero ≠ gratuito!' is superimposed over the center of the image.

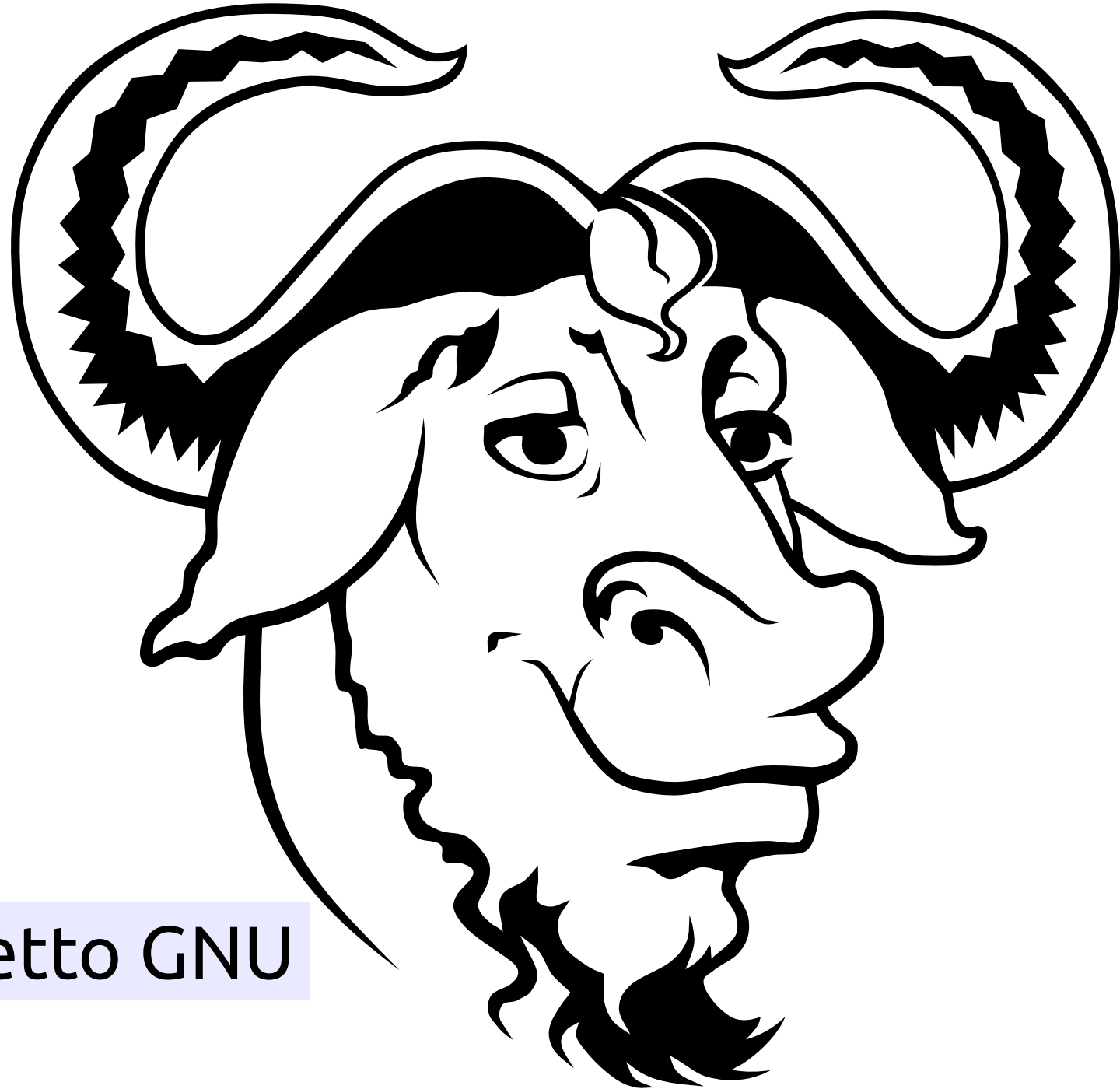
Libero ≠ gratuito!



1.130.000.000 \$



Libero è bello!
(e vantaggioso...)



1984: Il progetto GNU



Sistema operativo?
Kernel?

*Ma di che cosa stiamo
discutendo? (cit.)*

Qualche sistema operativo famoso





Il kernel

A portrait of Linus Torvalds, a man with light brown hair, smiling slightly. He is wearing a light blue polo shirt. The background is a blurred, curved architectural structure, possibly a bridge or a modern building. A semi-transparent white text box is overlaid at the bottom left.

All'improvviso uno sconosciuto
(parte seconda): Linus Torvalds

comp.os.minix

Message from discussion [What would you like to see most in minix?](#)

Linus Benedict Torvalds [View profile](#)

[More options](#) Aug 26 1991, 2:12 am

Hello everybody out there using minix -

I'm doing a (free) operating system (just a hobby, won't be big and professional like gnu) for 386(486) AT clones. This has been brewing since april, and is starting to get ready. I'd like any feedback on things people like/dislike in minix, as my OS resembles it somewhat (same physical layout of the file-system (due to practical reasons) among other things).

I've currently ported bash(1.08) and gcc(1.40), and things seem to work. This implies that I'll get something practical within a few months, and I'd like to know what features most people would want. Any suggestions are welcome, but I won't promise I'll implement them :-)

Linus (torva...@kruuna.helsinki.fi)

PS. Yes - it's free of any minix code, and it has a multi-threaded fs. It is NOT protable (uses 386 task switching etc), and it probably never will support anything other than AT-harddisks, as that's all I have :-).

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*“Solo un hobby:
non sarà grande e
professionale
come GNU”...*

L'importanza di
chiamarsi GNU/Linux



Powered By

GNU/Linux



Arrivano le “*distro*”!



Dov'è Linux oggi?





WALL ST

← 22-51









Google™

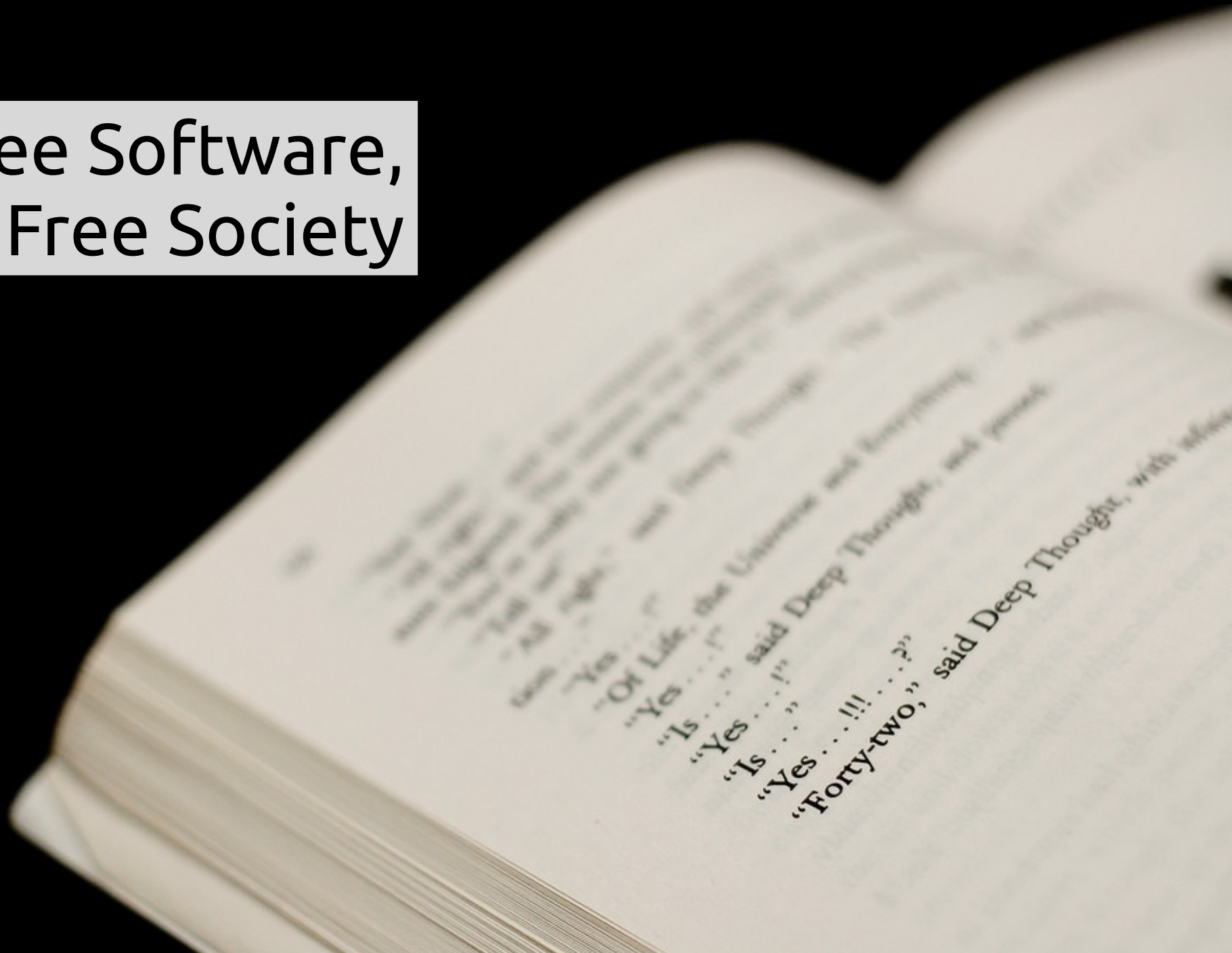
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Free Software, Free Society



Andrea Colangelo

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<http://andreacolangelo.com>