



La storia dei Sistemi Operativi

Stefano Borzì

Primo programmatore?

Ada Lovelace

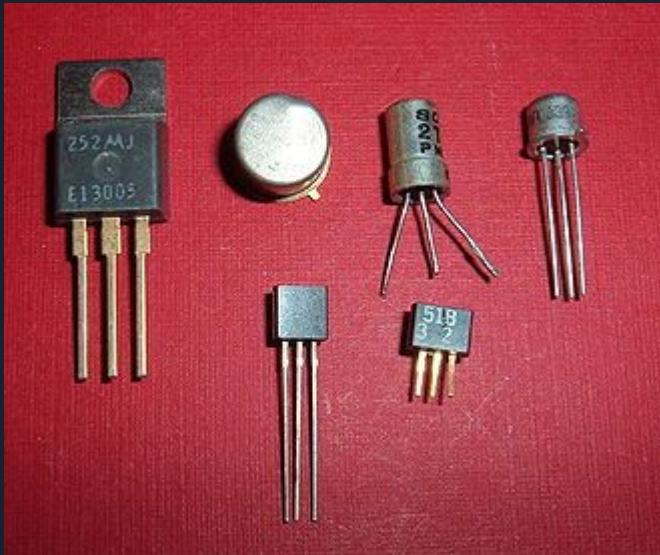
Matematica britannica - 1800



1945-1955 valvole termoioniche



anni '50-'60



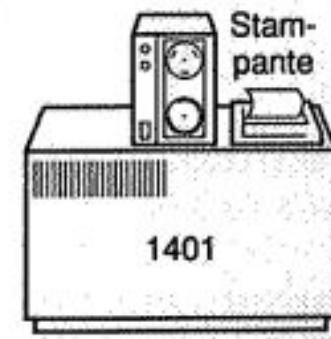
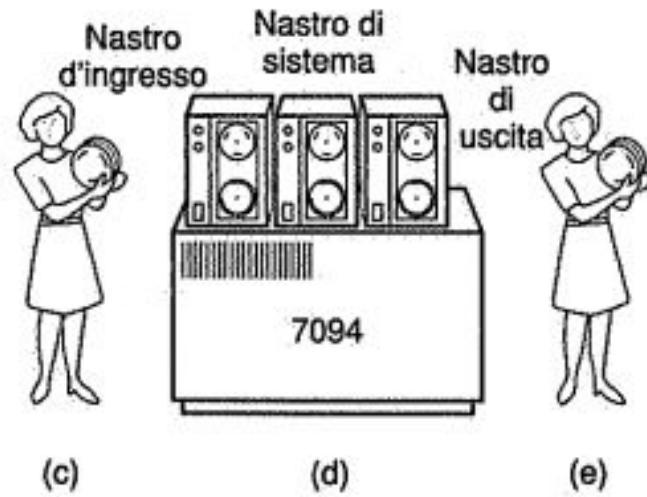
Transistor

A screenshot of a VIM text editor window titled 'helloworld.f + (~) - VIM'. The code displayed is:

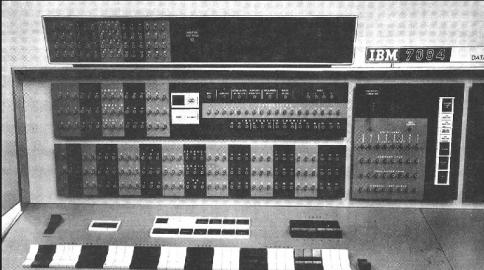
```
program helloworld
implicit none
character*13 hello_string
hello_string = "Hello, world!"
write (*,*) hello_string
end program helloworld
```

The word 'character' is highlighted in yellow.

FORTRAN



1965 - 1980



IBM 7094



IBM 1401



IBM System/360 (1964)

Time-sharing

CTSS

MULTICS

PDP-1

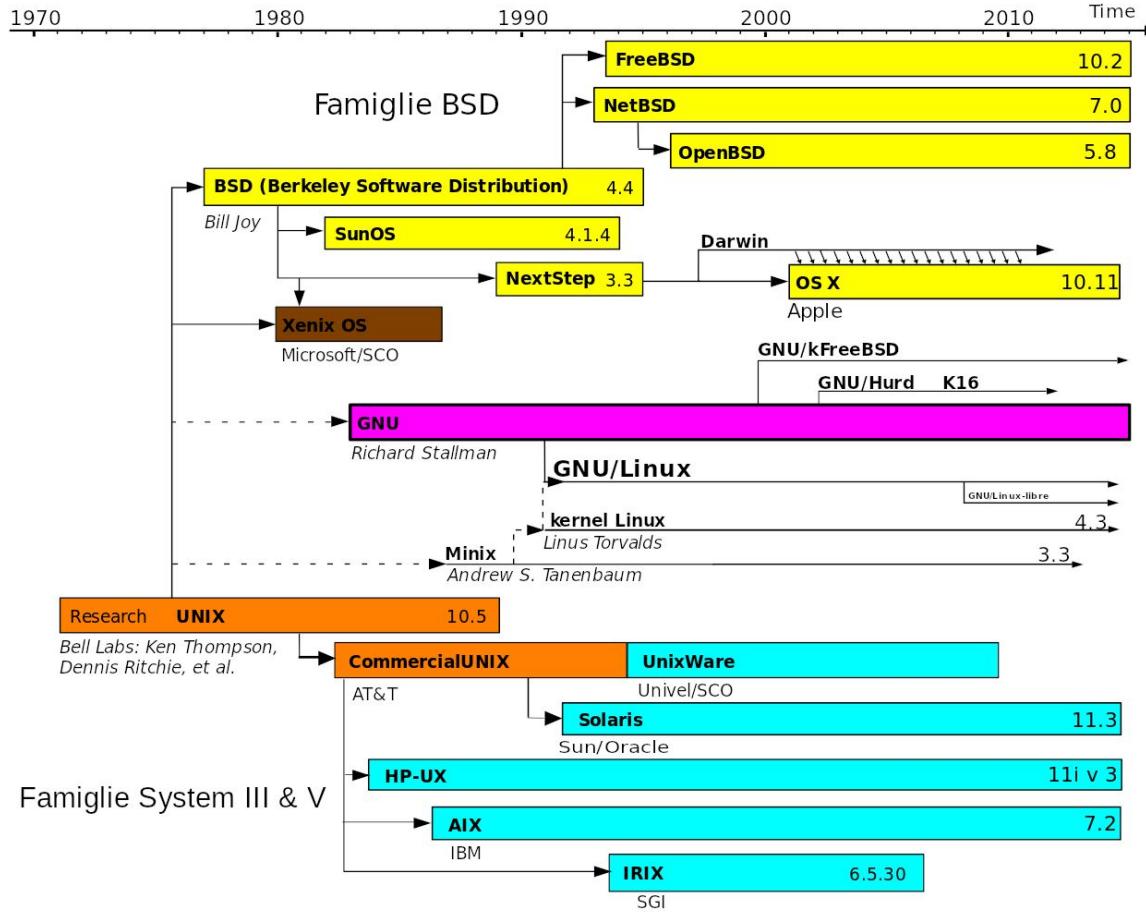


1965 - 1980



Ken Thompson con Dennis Ritchie

UNIX e derivate





1800

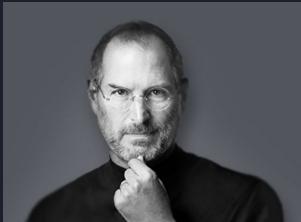
1945

1950

1965

1969

Personal Computer (1976)



Steve Jobs



Steve Wozniak



1976



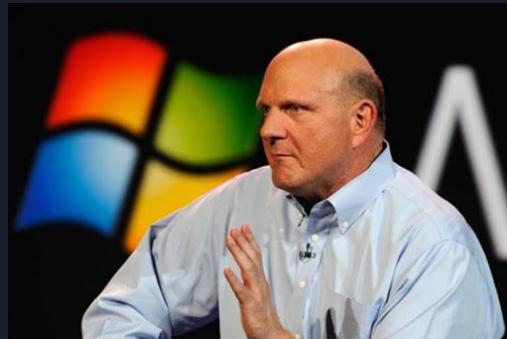
1984 - Mac OS



1975



Bill Gates



Steve Ballmer
(2008)



Satya Nadella
(2014)



VS



1983



1991



1997



2007



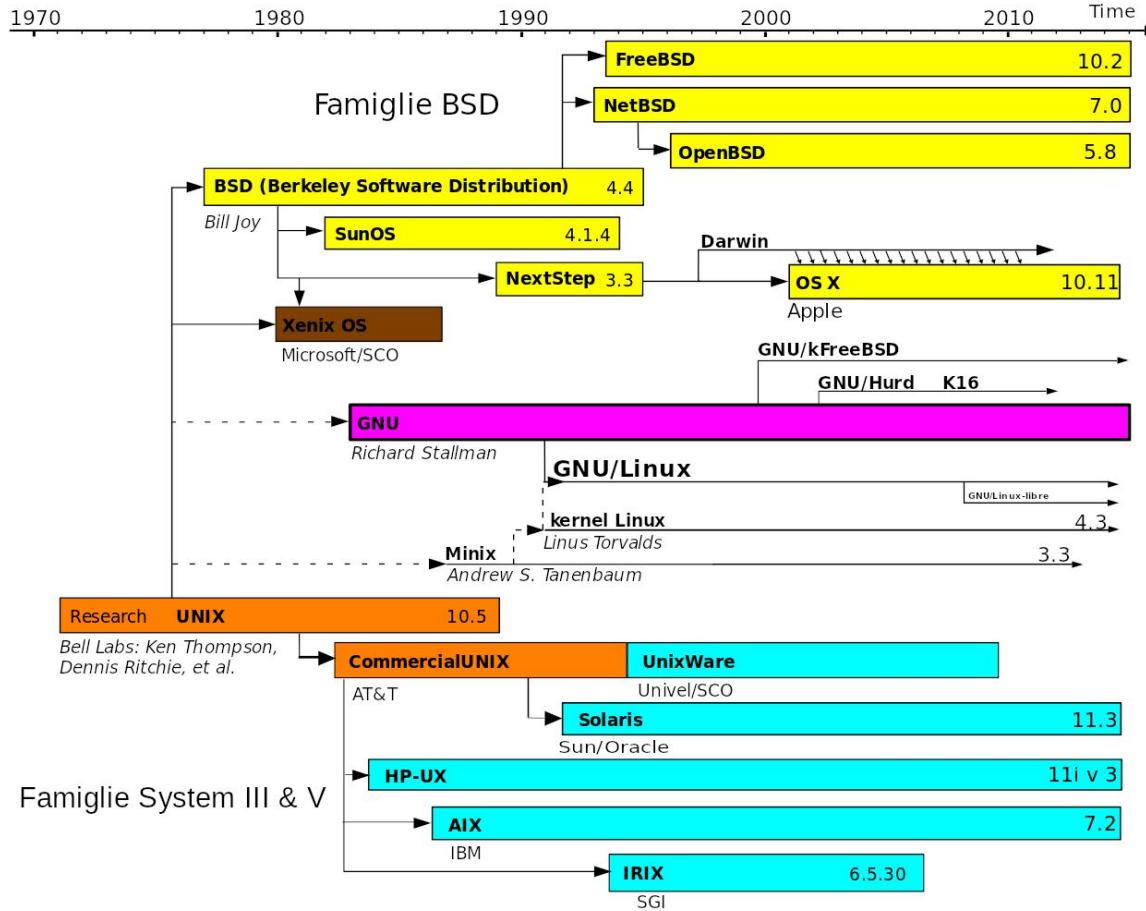
BSD



OS X



UNIX e derivate



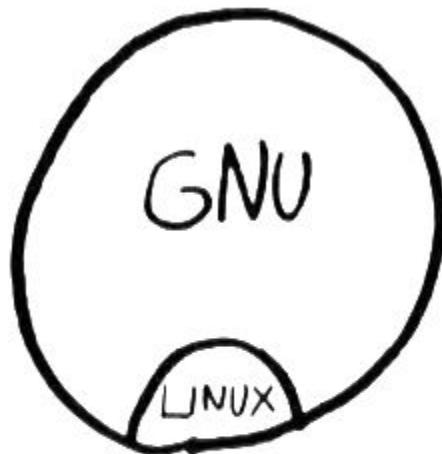
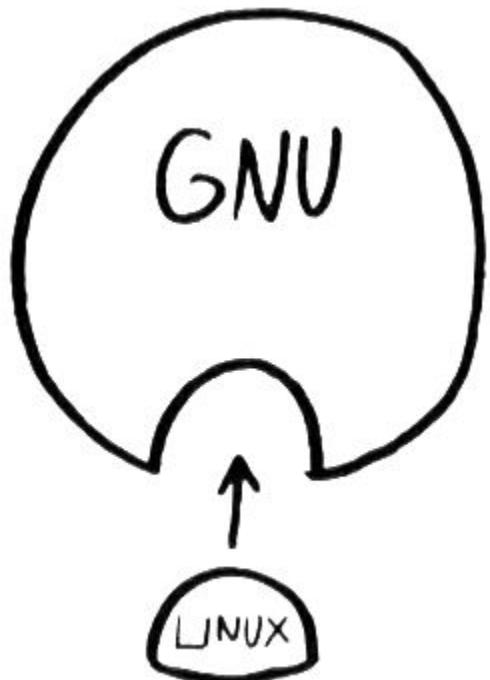
GNU Linux

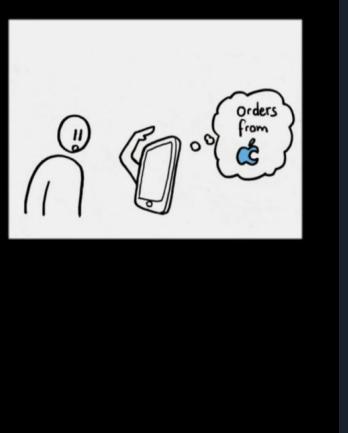


Richard Stallman

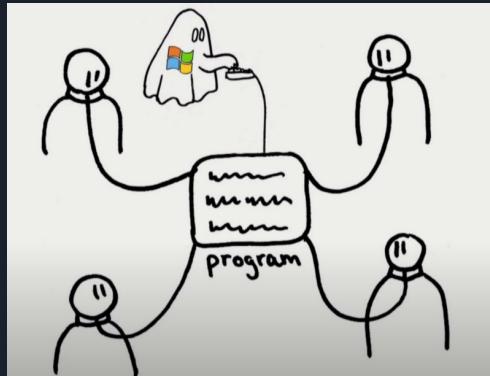
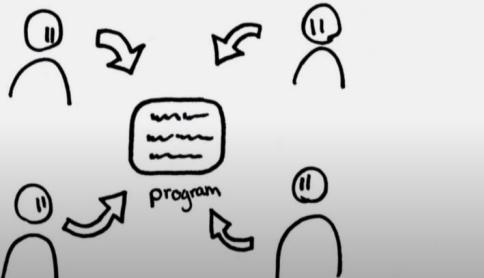


Linus Torvalds





Users control the program





1985

[Hacker News](#)

Lenovo liable for 20000€ in damages for refusing a 42€ Windows refund

[Article, Comments](#)

FSFE - Free Software Foundation Europe

Refund of pre-installed Windows: Lenovo must pay 20,000 euros in damages - FSFE

In a historic judgment in Italy, in a case initiated by FSFE supporter Luca Bonissi, Lenovo was ordered to pay 20,000 euros in damage...



02-03-2021

Linus Torvalds insulta Nvidia per il supporto a HFS+

"Nvidia: Fuck you" è un dito epiteo molto chiaro vista, la situazione operaio

Linus Torvalds: "HFS+ è certamente il peggiore filesystem mai creato".

a usato un punto di a guru. Torvalds ha regola e si è anche detto laibilità, prendendo spunto da una Optimus, che permette l'uso del core secondo il carico di lavoro.



torvalds/linux



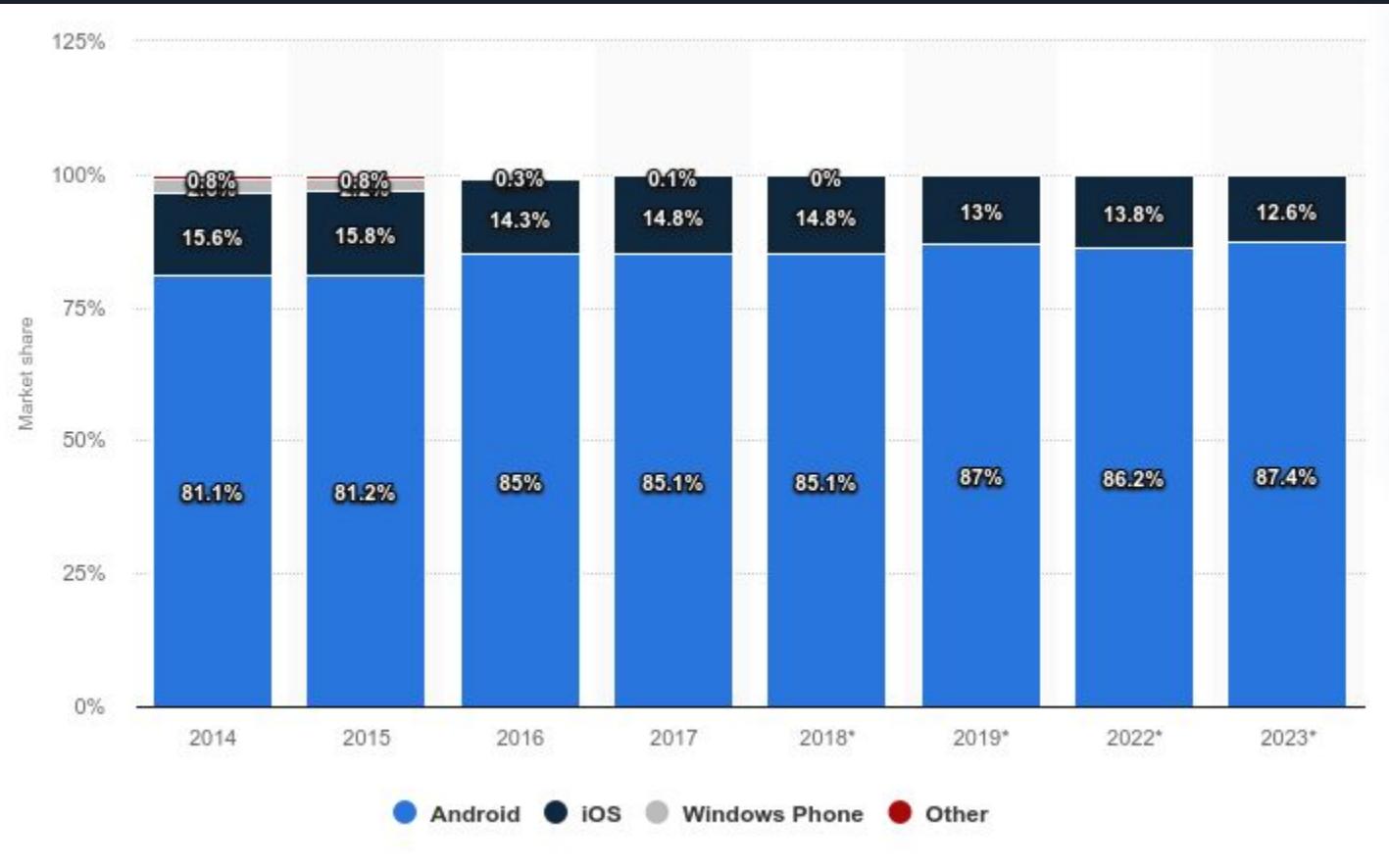


2005



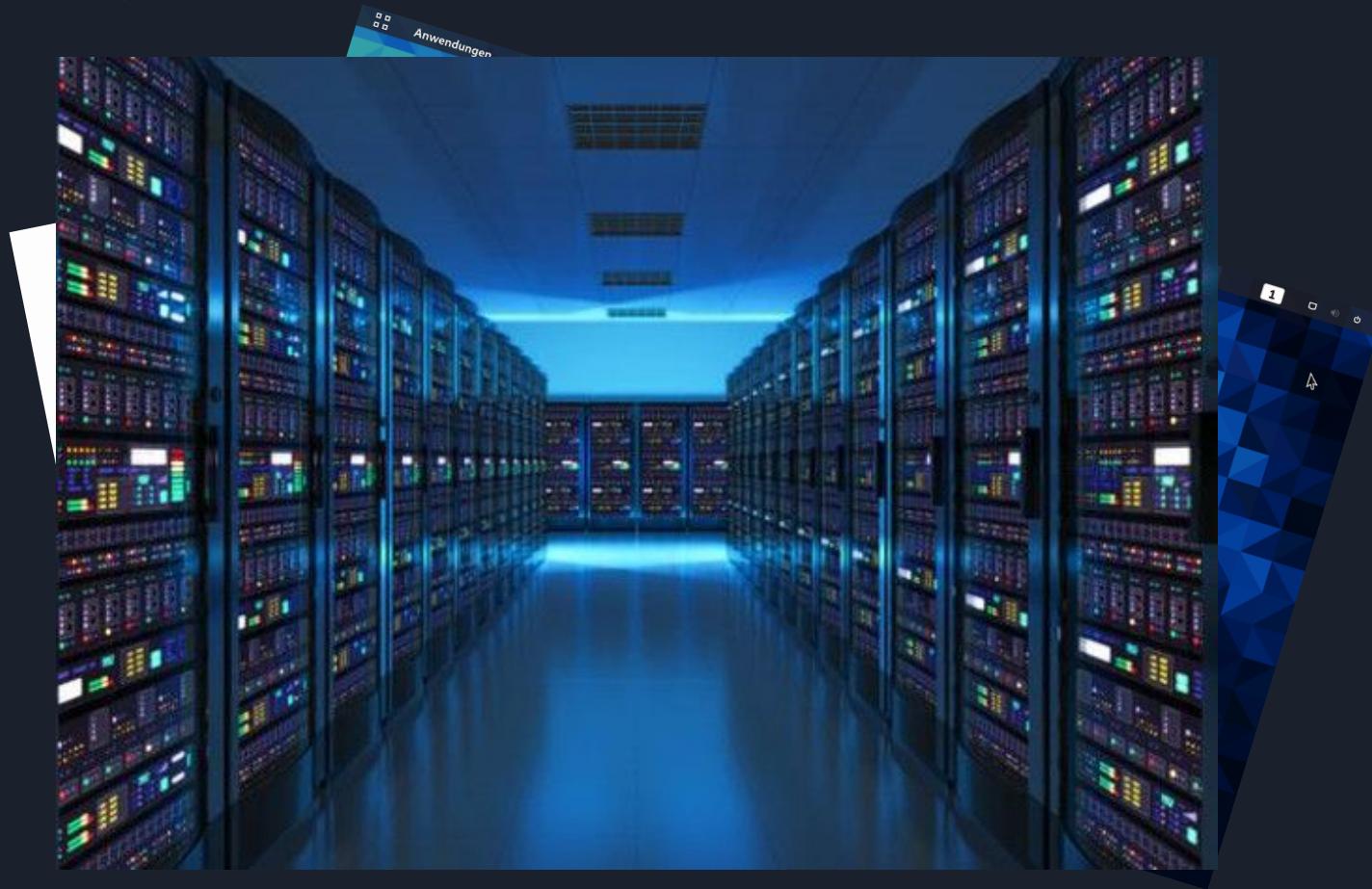
2017





(2019)

Dov'è usato Linux?





Steve Ballmer
(2008)

Nah!

MakeAGIF.com

Iphone

Embrace, extend, and extinguish (EEE)



A background image of a jack-o'-lantern face with glowing orange eyes and a wide, toothy grin.

The Microsoft logo icon, which is a stylized orange cube.

THE HALLOWEEN DOCUMENTS

1998 – Microsoft Corporation compelled to admit the authenticity of some Confidential memoranda about the suppression of Open Source Systems.

Facts, consequences and main events about the documents which put Microsoft in a big pickle at the end of 90's.

Microsoft: we were wrong about open source

Microsoft has embraced open source and even Linux in recent years

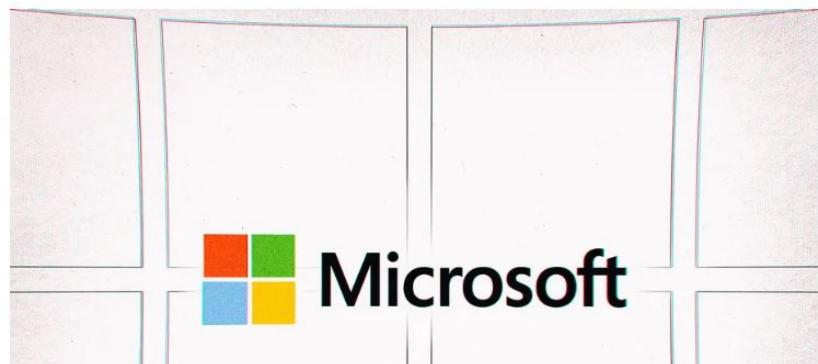
By Tom Warren | @tomwarren | May 18, 2020, 8:26am EDT



Listen to this article



SHARE



Microsoft





Satya Nadella
(2014)





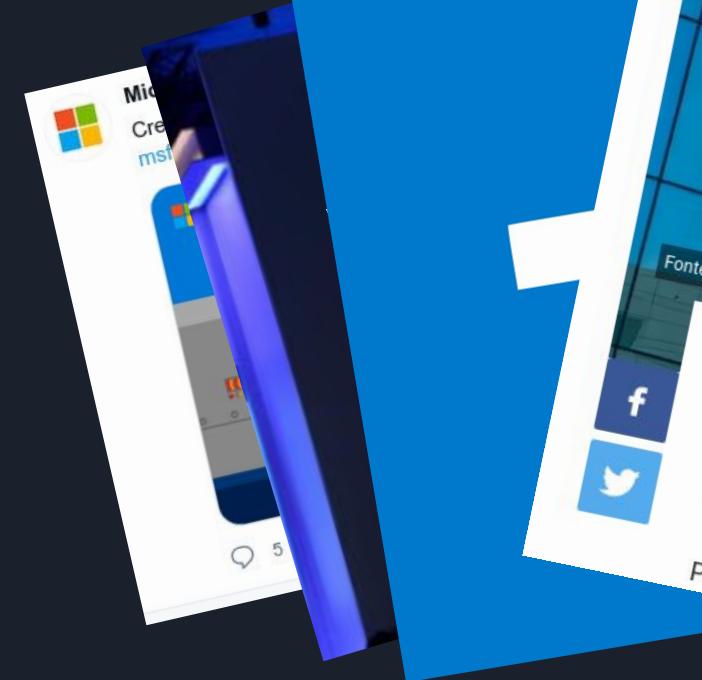


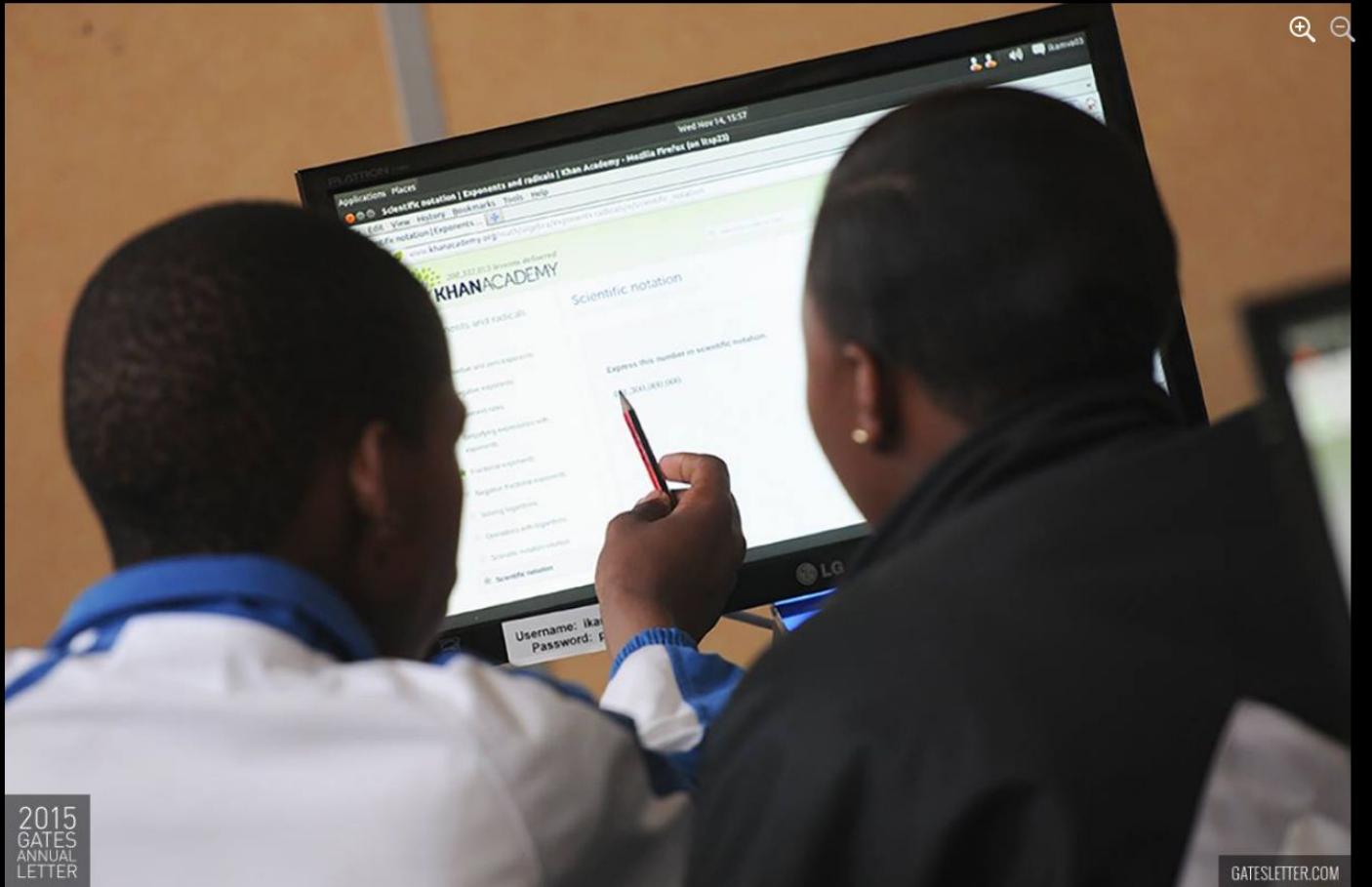
Fonte foto: Shutterstock

TECH NEWS

Microsoft apre all'open source ed entra nella Linux Foundation

Passo significativo per Microsoft che diventa Platinum member e sborsando 500





2015
GATES
ANNUAL
LETTER

GATESLETTER.COM

Bill Gates
29 gennaio 2015 ·

15 years from now, most people in poor countries will be able to take classes online: <http://bit.ly/1LNsLE>

42 Commenti: 1425 Condivisioni: 2416

Mi piace **Commenta** **Condividi**

Più pertinenti ▾

Pemuja Paha Huta
Bill gate : 15 years again most people will be able to take classes online (2015).
Corona : that's to long bill, i can make it NOW!!! (march 2020). 😊 see, now everyone able to take classes online more faster
People : 🤡🤡🤡🤡

Rispondi · 9 sett. · **Modificato** 2

Iqbal Fabriansyah
Power of LINUX!!
The Future for Linux

Rispondi · 9 sett.

Wahid
speedrun 10 years

Rispondi · 9 sett.

Kevin ID
Now all of countries take online class, because corona pandemic

Rispondi · 9 sett.

Muhammad Rayhan Maulana
Well apparently it took only 5 years



1975

1976

1984

1985

Personal
Computer





Technology News / News-Analysis

VALVE SAYS LEFT 4 DEAD 2 RUNS FASTER ON LINUX THAN ON WINDOWS



Valve had announced last month that it is working on porting its popular digital distribution platform for games, Steam, to Linux. The company was also...

SHUNAL DOKE

AUG 03, 2012 11:04:55 IST

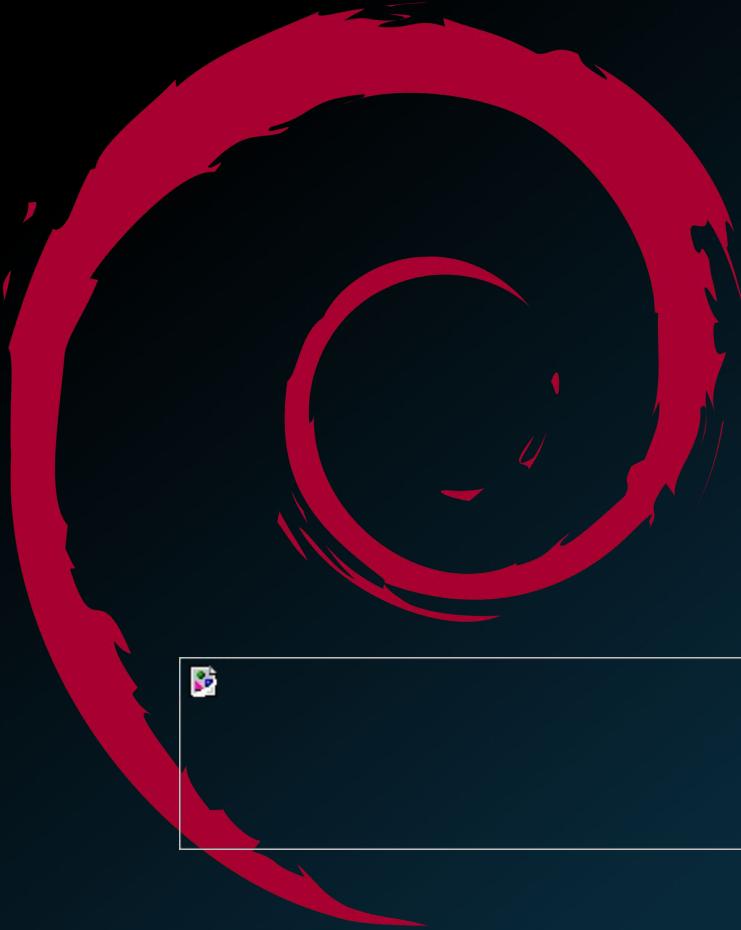


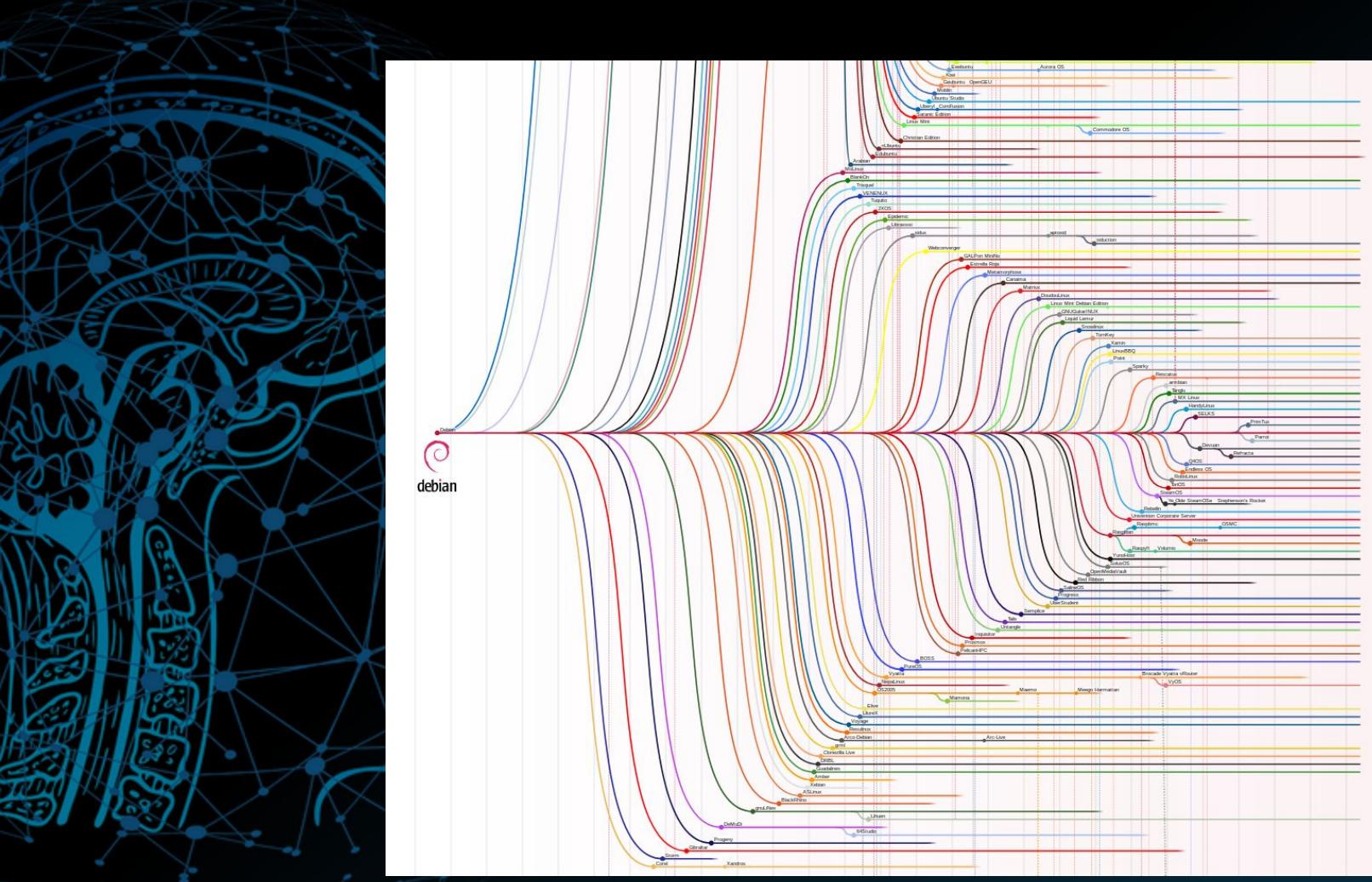
STEAM

Gabe

Steam machine

PAUSA







Autore

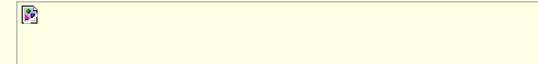
TNG2033

A e C

Q: Tipi di rosso...



- **Tipo:** [Linux](#)
- **Basata su:** Independent
- **Provenienza:** [Global](#)
- **Architetture:** [aarch64](#), [armel](#), [armhf](#), [i686](#), [mips](#), [mipsel](#), [ppc64el](#), [s390x](#), [x86_64](#)
- **Desktop:** [AfterStep](#), [Awesome](#), [Blackbox](#), [Cinnamon](#), [Fluxbox](#), [flwm](#), [FVWM](#), [GNOME](#), [i3](#), [IceWM](#), [ion](#), [JWM](#), [KDE](#), [LXDE](#), [LXQt](#), [MATE](#), [Openbox](#), [pekwm](#), [Ratpoison](#), [WMaker](#), [XBMC](#), [Xfce](#)
- **Categoria:** [Desktop](#), [Live Medium](#), [Server](#)
- **Stato:** [Attiva](#)
- **Popolarità:** [4 \(1.560 visite al giorno\)](#)





PRO

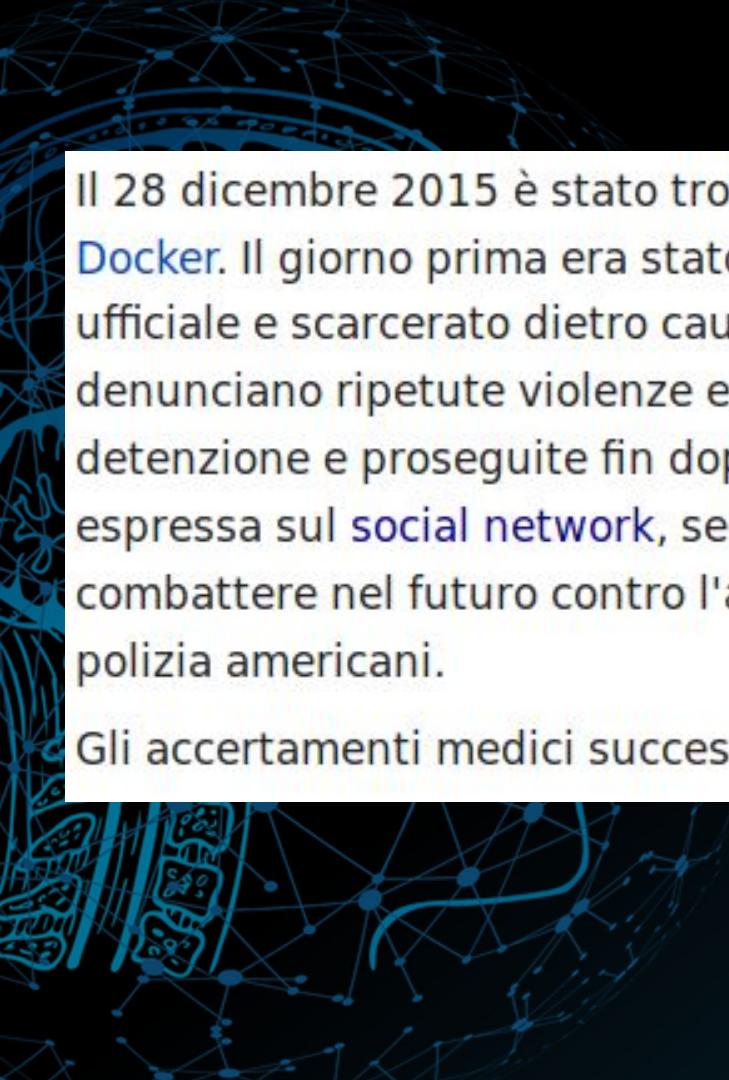
- ☒ È molto rigido per i software opensource
- ☒ Ha una grande community
- ☒ Supporta la maggior parte delle architetture di qualsiasi distribuzione binaria di Linux.
- ☒ Il formato dei suoi pacchetti “.deb” è uno dei più diffusi
- ☒ È la distribuzione Linux più vecchia e supportata dopo Slackware
- ☒ Sono sempre supportate le seguenti branch di Debian:
 - oldstable
 - stable
 - testing
 - unstable

CONTRO

- ☒ È molto rigido per i software opensource
- ☒ Usa “systemd”

Ian Murdock



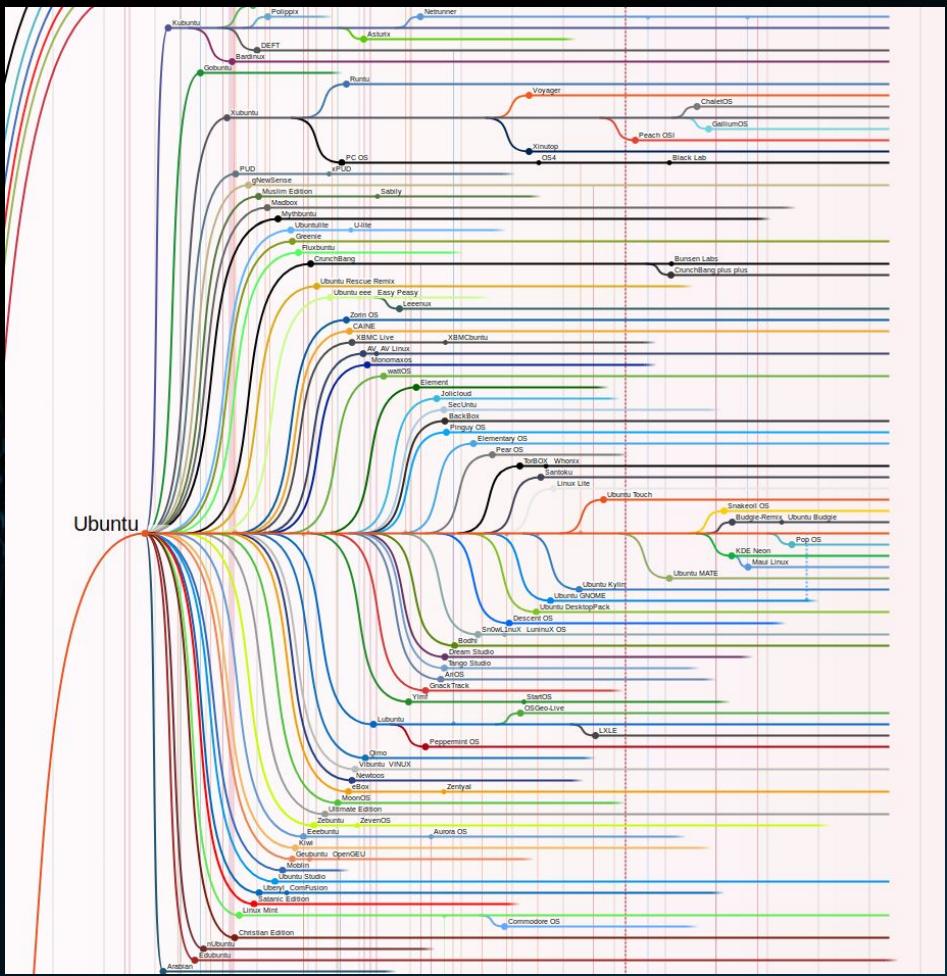
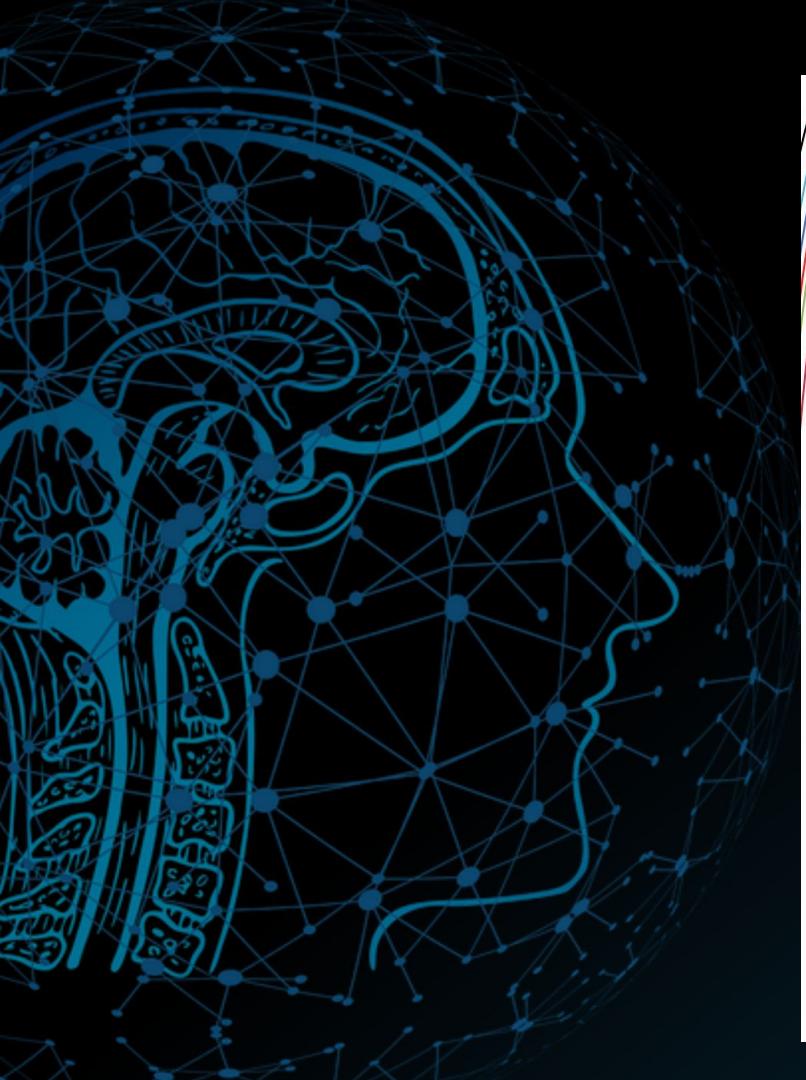


Il 28 dicembre 2015 è stato trovato morto a San Francisco, dove lavorava a Docker. Il giorno prima era stato arrestato per violenza e resistenza a pubblico ufficiale e scarcerato dietro cauzione.^[1] Gli ultimi suoi posts su twitter denunciano ripetute violenze e umiliazioni, anche sessuali, subite durante la detenzione e proseguiti fin dopo il rilascio. Ad una prima intenzione di suicidio espressa sul social network, seguiva un'affermazione della volontà di combattere nel futuro contro l'abuso di potere esercitato dai dipartimenti di polizia americani.

Gli accertamenti medici successivi hanno stabilito che si trattò di suicidio.^[2]



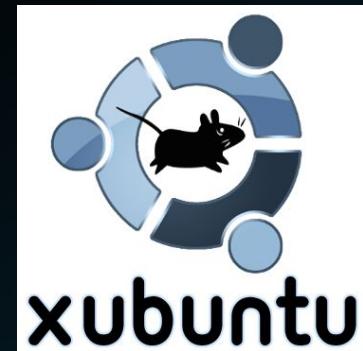
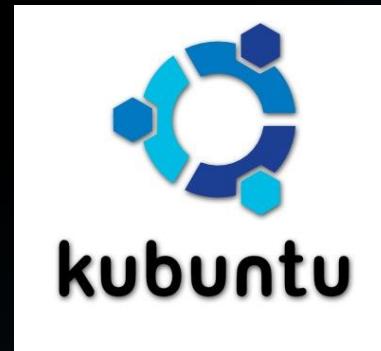
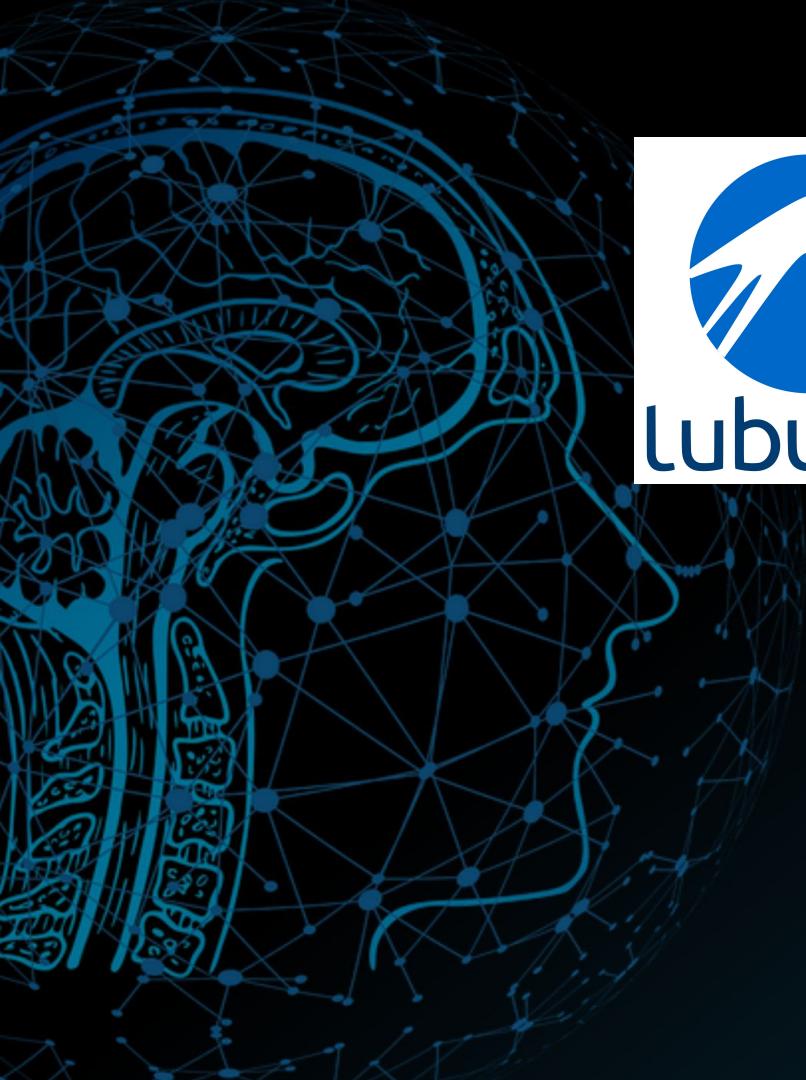






ubuntu

- **Tipo:** [Linux](#)
 - **Basata su:** [Debian](#)
 - **Provenienza:** [Isle of Man](#)
 - **Architetture:** [armhf](#), [i686](#), [powerpc](#), [ppc64el](#), [s390x](#), [x86_64](#)
 - **Desktop:** [GNOME](#), [Unity](#)
 - **Categoria:** [Beginners](#), [Desktop](#), [Server](#), [Live Medium](#)
 - **Stato:** [Attiva](#)
 - **Popolarità:** [5](#) (1,402 visite al giorno)





List of releases

Ubuntu Website release cycle page

Current

Version	Code name	Docs	Release	End of Standard Support	End of Life
Ubuntu 19.10	Eoan Ermine	Release Notes	October 17, 2019	July, 2020	July, 2020
Ubuntu 19.04	Disco Dingo	Release Notes	April 18, 2019	January, 2020	January, 2020
Ubuntu 18.04.3 LTS	Bionic Beaver	Changes	August 8, 2019	April 2023	April 2028
Ubuntu 18.04.2 LTS	Bionic Beaver	Changes	February 15, 2019	April 2023	April 2028
Ubuntu 18.04.1 LTS	Bionic Beaver	Changes	July 26, 2018	April 2023	April 2028
Ubuntu 18.04 LTS	Bionic Beaver	Release Notes	April 26, 2018	April 2023	April 2028
Ubuntu 16.04.6 LTS	Xenial Xerus	Changes	February 28, 2019	April 2021	April 2024
Ubuntu 16.04.5 LTS	Xenial Xerus	Changes	August 2, 2018	April 2021	April 2024
Ubuntu 16.04.4 LTS	Xenial Xerus	Changes	March 1, 2018	April 2021	April 2024
Ubuntu 16.04.3 LTS	Xenial Xerus	Changes	August 3, 2017	April 2021	April 2024
Ubuntu 16.04.2 LTS	Xenial Xerus	Changes	February 16, 2017	April 2021	April 2024
Ubuntu 16.04.1 LTS	Xenial Xerus	Changes	July 21, 2016	April 2021	April 2024
Ubuntu 16.04 LTS	Xenial Xerus	Release Notes	April 21, 2016	April 2021	April 2024
Ubuntu 14.04.6 LTS	Trusty Tahr	Changes	March 7, 2019	April 2019	April 2022
Ubuntu 14.04.5 LTS	Trusty Tahr	Changes	August 4, 2016	April 2019	April 2022
Ubuntu 14.04.4 LTS	Trusty Tahr	Changes	February 18, 2016	HWE August 2016	April 2022
Ubuntu 14.04.3 LTS	Trusty Tahr	Changes	August 6, 2015	HWE August 2016	April 2022
Ubuntu 14.04.2 LTS	Trusty Tahr	Changes	February 20, 2015	HWE August 2016	April 2022
Ubuntu 14.04.1 LTS	Trusty Tahr	Changes	July 24, 2014	April 2019	April 2022
Ubuntu 14.04 LTS	Trusty Tahr	Release Notes	April 17, 2014	April 2019	April 2022

Release announcements are posted on the [ubuntu-announce](#) mailing list.



PRO

- ◆ Ogni release ogni 6 mesi
- ◆ Versione LTS
- ◆ Partner Canonical
- ◆ User-friendly, tutto pronto per un utente "beginner"
- ◆ È una delle distro più usate

CANONICAL

CONTRO

- ◆ Poca stabilità
- ◆ Più pesante rispetto ad altre distro



In Africa there is a concept known as '**ubuntu**' - the profound sense that we are human only through the humanity of others

~ Nelson Mandela





Computer



Home



Ins



- **Tipo:** [Linux](#)
- **Basata su:** [Debian](#), [Ubuntu \(LTS\)](#)
- **Provenienza:** [Ireland](#)
- **Architetture:** [i386](#), [x86_64](#)
- **Desktop:** [Cinnamon](#), [MATE](#), [Xfce](#)
- **Categoria:** [Beginners](#), [Desktop](#), [Live Medium](#)
- **Stato:** Attiva
- **Popolarità:** 3 ([2,043 visite al giorno](#))



- ▶ Sound & Video
- ⌚ Backup Tool
- 🏃 Universal Access
- ⚙ Administration
- 🔧 Preferences
- 📁 Places
- 🔒 Lock
- 🔄 Rotate
- ⚡ Power

- Bluetooth
- Calculator
- Calendar
- Character Map
- Color
- Date & Time



21:25



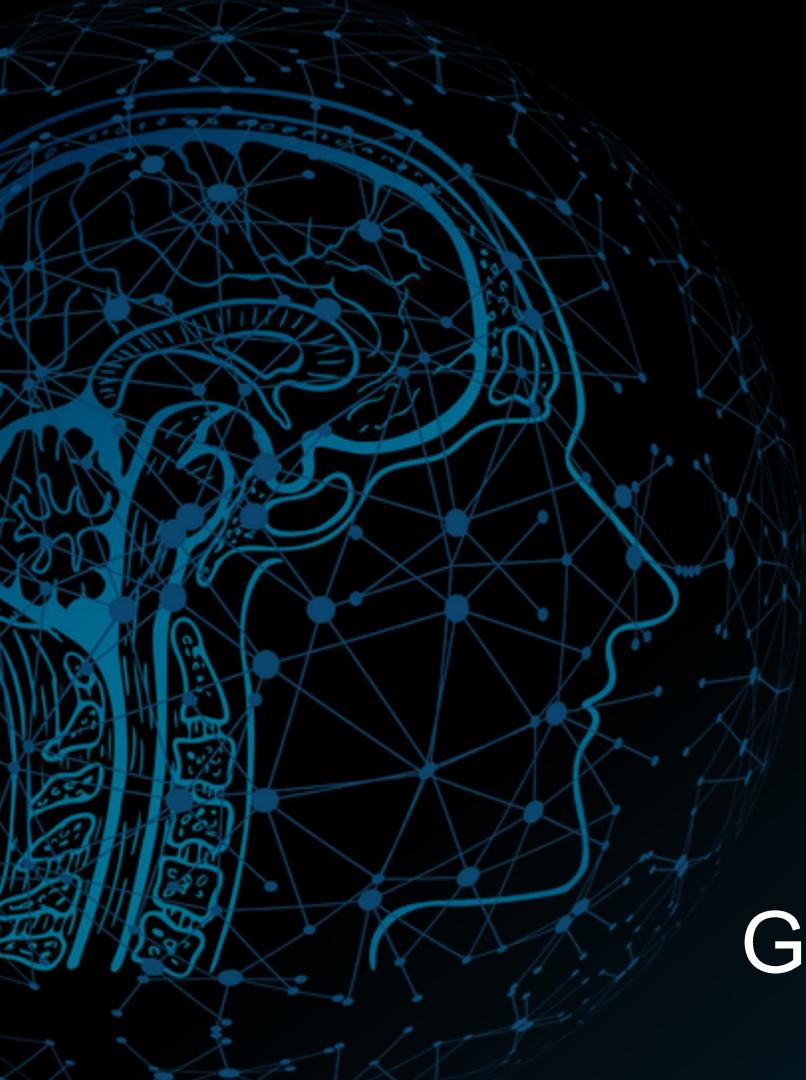
PRO

- ▣ Favorisce la diffusione delle tecnologie open source, ma considera anche alternative del mondo proprietario, e l'esperienza dell'utente viene prima dei problemi di licenza
- ▣ È user-friendly, mira ad avere un'esperienza più intuitiva per l'utente
- ▣ Gestisce gli aggiornamenti diversamente da Ubuntu per conferire una maggiore stabilità all'OS.
- ▣ È una delle distro più usate

CONTRO

- ▣ Poca stabilità rispetto a Debian (ma non rispetto ad Ubuntu)
- ▣ Più pesante rispetto ad altre distro
- ▣ Non comunica le date di pubblicazione delle nuove distribuzioni, ma le versioni sono annunciate "quando pronte" (when ready)
- ▣ Open source & software proprietario

<https://community.linuxmint.com/idea/welcome>



\$ whoami

- Stefano Borzi
- @Helias
- github.com/Helias

GRAZIE DELL'ATTENZIONE