

Why not Windows?

2011

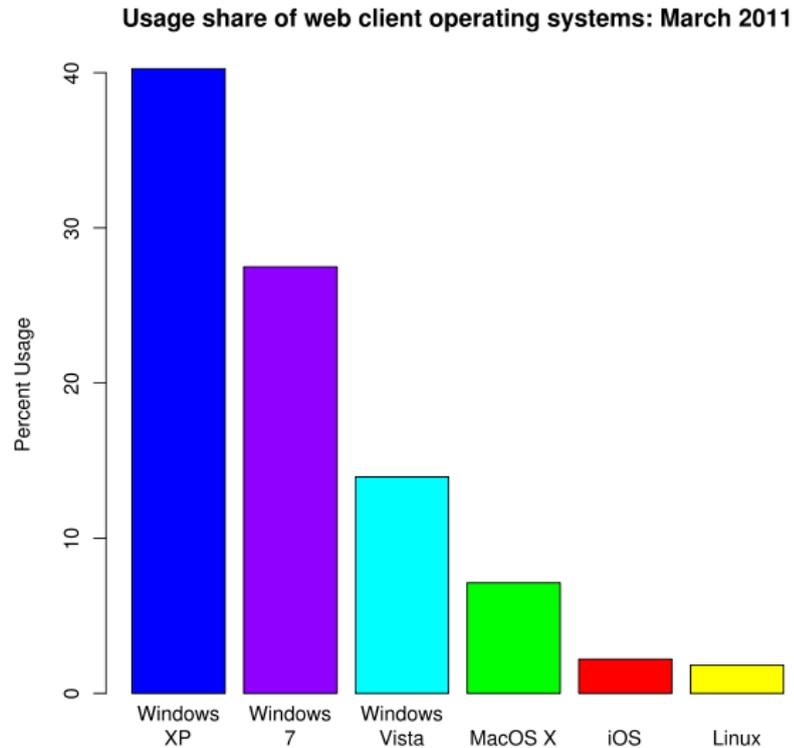
MIEET 1^o ano



Peter Stallinga UAlg 2011

Market share

One reason why to use Windows: Windows has 90% market share



10 reasons why to switch to something else ...

1) Windows is immoral



1970: UNIX is the standard operating system

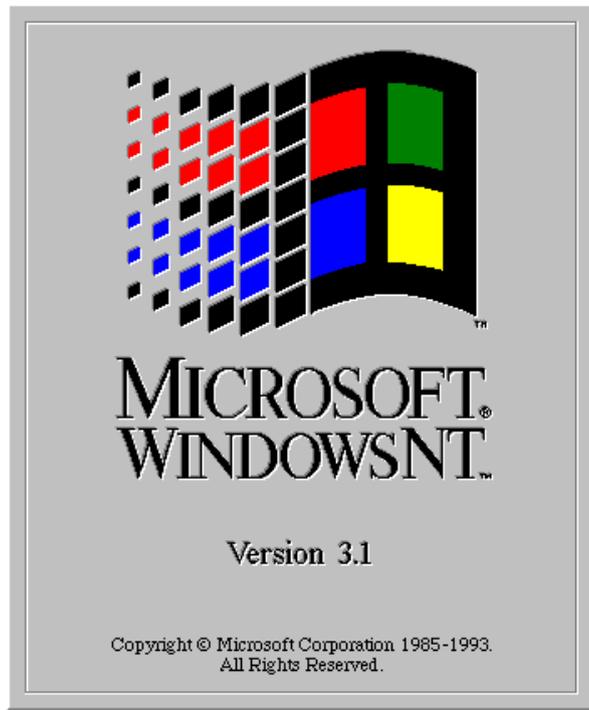


1980: MS-DOS is a stolen version of UNIX, with most functionality removed

- No network
- No multitasking
- No multi-user

(Note that most names for commands are derived from UNIX)

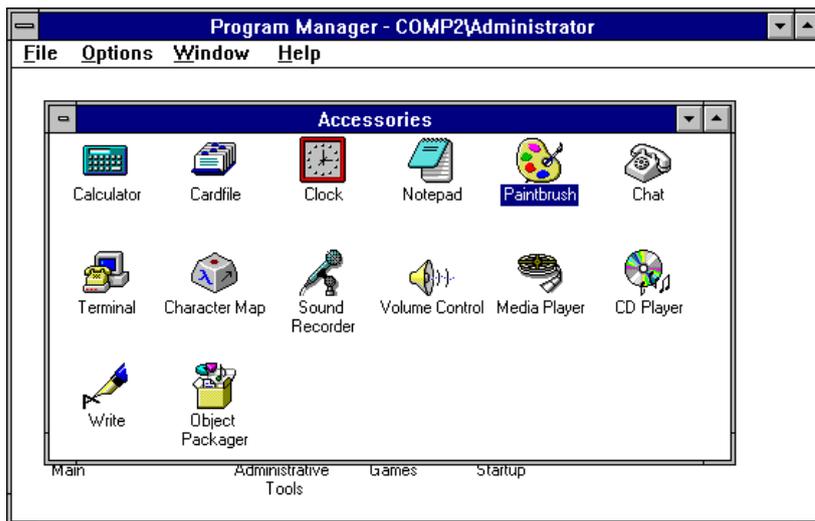
1) Windows is immoral



1990: Microsoft adds a graphic interface to MS-DOS WIMP (Windows, Icons, Mouse, Pointer). Windows is born

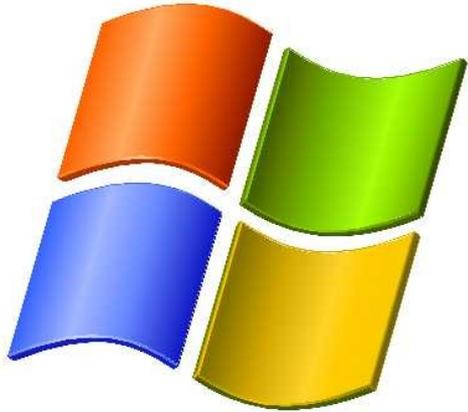


WIMP developed by Xerox. Implemented by Apple Macintosh. Stolen by MicroSoft

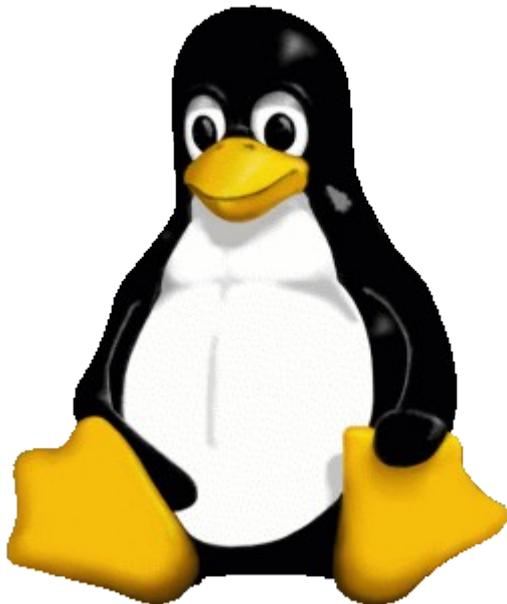


Note: Nowadays we call WIMP a GUI (graphical user interface) such as Gnome or KDE

1) Windows is immoral



Windows (re)adds multi user, multi tasking and network functionality



UNIX adds graphical user interface. Linux is born

There now exist basically **two operating systems with the same functionality**

2) Windows is bad

```
A problem has been detected and windows has been shut down to prevent damage  
to your computer.
```

```
THREAD_NOT_MUTEX_OWNER
```

```
If this is the first time you've seen this stop error screen,  
restart your computer. If this screen appears again, follow  
these steps:
```

```
Check to make sure any new hardware or software is properly installed.  
If this is a new installation, ask your hardware or software manufacturer  
for any windows updates you might need.
```

```
If problems continue, disable or remove any newly installed hardware  
or software. Disable BIOS memory options such as caching or shadowing.  
If you need to use Safe Mode to remove or disable components, restart  
your computer, press F8 to select Advanced Startup Options, and then  
select Safe Mode.
```

```
Technical information:
```

```
*** STOP: 0x00000011 (0x00234234,0x00005345,0x05345345,0xFFFFFFFF)
```

The famous Blue Screen of Death (BSOD)

2) Windows is bad

The reasons are various

- Trying to maintain compatibility with earlier versions
- The program is 'linked' to the hardware that is constantly changing
- Most of employees in the company of MS work in Marketing, Fiscal or Law departments. Only a handful in R&D (developers)

2) Windows is bad



<http://www.youtube.com/watch?v=UjZQGRATlwA>

2) Windows is bad



2) Windows is bad

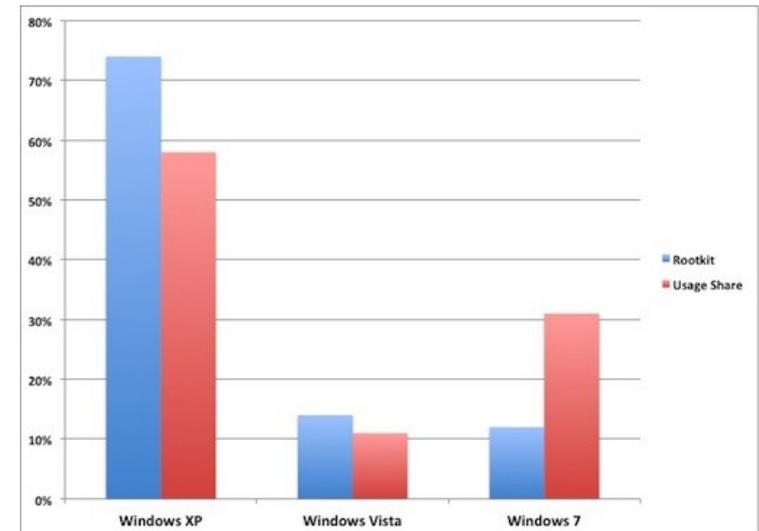
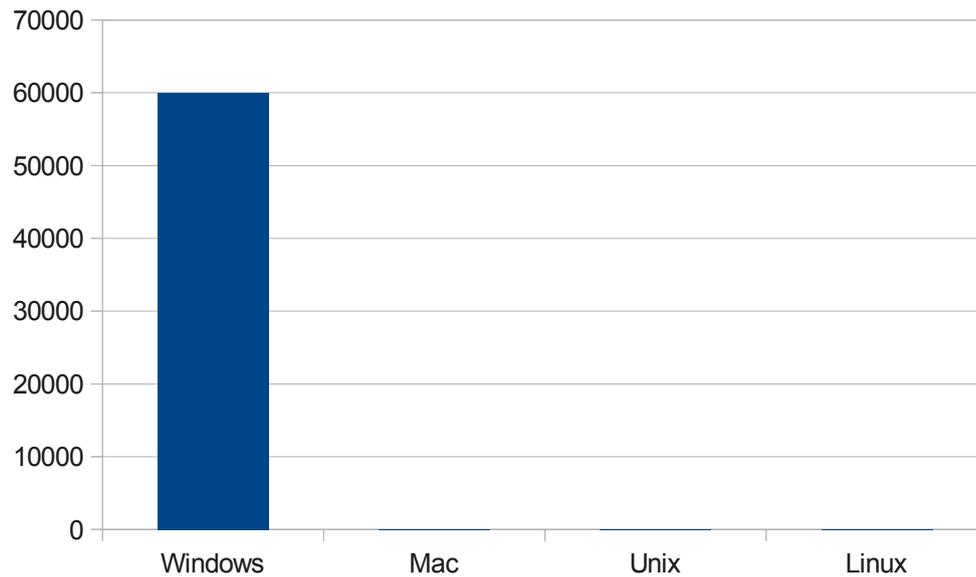


2) Windows is bad



3) Windows is unsafe

"There are about **60,000 viruses known for Windows**, 40 or so for the Macintosh, about 5 for commercial Unix versions, and perhaps 40 for Linux. Most of the Windows viruses are not important, but many hundreds have caused widespread damage. Two or three of the Macintosh viruses were widespread enough to be of importance. **None of the Unix or Linux viruses became widespread - most were confined to the laboratory.**"



It is as likely to get a virus in Linux as it is winning the Euromillions!

It is as likely catching a virus in Windows as it is getting a bill from the IRS

http://www.theregister.co.uk/2003/10/06/linux_vs_windows_viruses/

3) Windows is unsafe

Why Windows is unsafe?

I: vector

There are more Windows users in the world. This is just a matter of the better 'vector' for spreading of a virus.

To use biological terms: The risk of mono-culture.

II: inherent

In Windows, 1-step infection: 1) read an e-mail and you can be infected

In Unix to be infected by a virus it needs 5 steps: 1) read e-mail, 2) save attachment, 3) become root, 4) change permissions, 5) execute program.

4) Windows is slow

Why Windows is slow?

I: Virus checking

Every byte that comes in has to be checked



II: Every program and operation has to be registered

III: Third party software is installed and stays there
iTunes (Bonjour, AppleUpdater), Google Toolbar, Samsung mobile center, Toshiba Help Center. All fighting for your attention (and money). Your computer is a battleground!

IV: Non centralized software and update server. Updating in the most irritating moments.



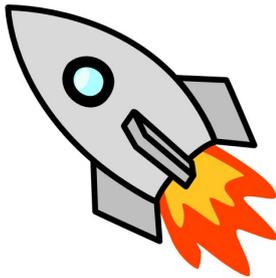
5) Windows is expensive

I: Imagine you have 600 euros to spend



Buy an i7 four-core(*) (600 Euro). 2.7 GHz, 6 GB RAM, Ati Radeon grafix.

Install Ubuntu (gratis), Firefox (gratis) and OpenOffice (gratis). Inkscape (gratis). Octave (gratis), etc.



Buy a Celeron (200 Euro) 1 GHz, 1 GB RAM. No graphics card

Install Windows (150 Euro) IE (gratis) and MS-Office (150 Euro) Antivirus (100 euro). *Corel Draw (300 euros). MatLab (500 euros)* Use illegal, pirated versions!



They'll take all your money and call you a thief

(*) Unfortunately, most shops have a Microsoft tax that forces you to buy Windows. Which you will use for one thing: "FORMAT C:"

5) Linux is cheap

Raspberry Pi

An ARM Linux box for \$25. Take a byte!



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6) Windows is not in academic spirit

“Open Source”

“You can use the source code of this program as long as your final program is also Open Source”



Imagine a company. Instead of 80% working on how to prevent the software from illegal copying, lawyers putting the entire world in court, 100% of the people can work on developing the software!

6) Windows is not in academic spirit

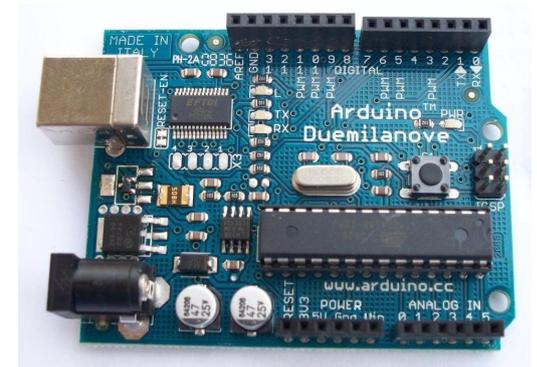
Good examples:



Ubuntu Linux: It's not the best, but nobody is getting rich over our misery!



Arduino. Open Source **hardware**
(See lectures on Electronic Instrumentation)



7) Windows is anti-innovative

Name me one software innovation:

- Internet
- WWW
- Text processing
- Databases
- E-mail
- Search engines
- Instant messaging
- Maps/gps
- Social networks (Facebook, Twitter, LinkedIn, Myspace)
- Wireless
- VoIP
- Cloud computing (Dropbox, etc.)
- Streaming TV
- MUD (multi-user on-line game)

None of these innovations is from MicroSoft. The moment a technology becomes unstoppable, they buy the leader of the market. To then block it, or monopolize it.

8) Other OS is alternative

Because you are in the academic environment, you have to know the alternatives

Other people can say that they know only Windows. You can laugh in their faces. “Windows is best? But why?!! Give me a reason.”



8) Other OS is alternative

Because you are in the academic environment, you have to know the alternatives. Start thinking like an academic and **stop repeating what the other (parrots) are telling you**



“Cup is half full or half empty?”

Neither. The cup is full! Half water, half air!

9) Marketing + lawyers

Windows is designed by a **marketing** department of a company only interested in **money**.
Run by **lawyers** to prevent people from illegally using it



Linux is made **by people like you** and **for people like you**

Open Source



MicroSoft

10) No future

The future is in the hands of Unix



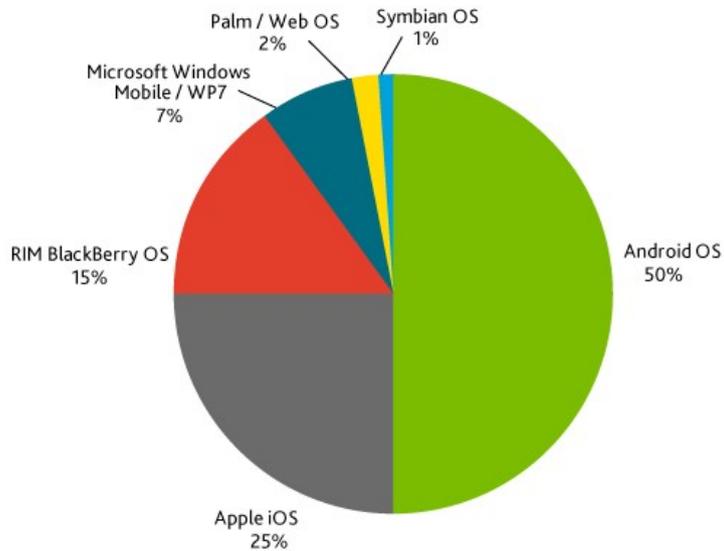
Android (Linux distribution) is the most sold operating system for mobile devices



Note: also Apple iOS is Linux!

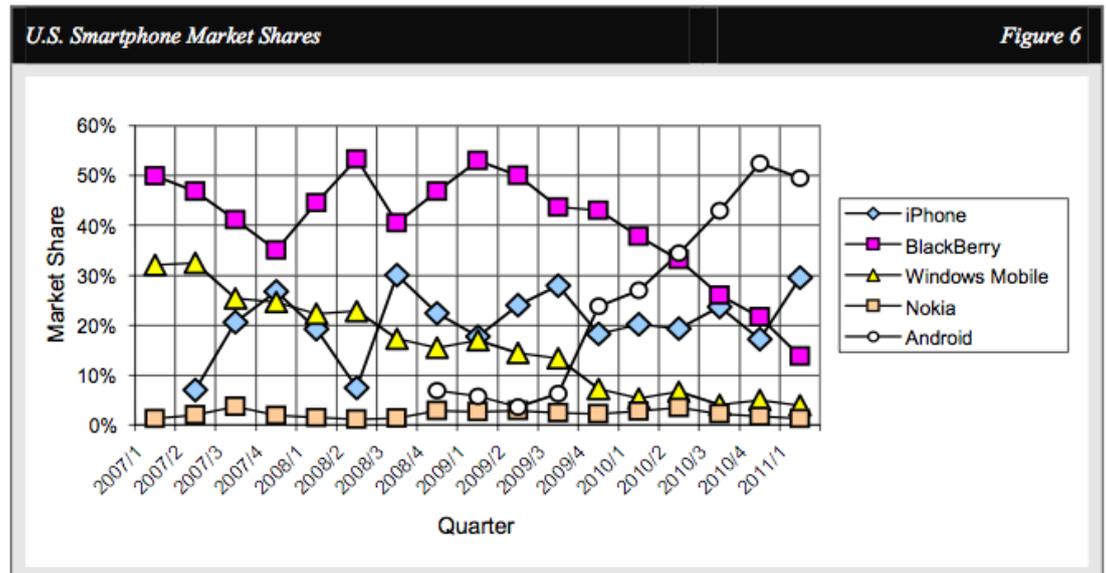
Smartphone market share - recent acquirers

March '11, Nielsen Mobile Insights, National



Source: The Nielsen Company.

nielsen



Source: IDC.

Why not Windows?



- 1) Windows is immoral
- 2) Windows is crappy
- 3) Windows is slow (virus checking)
- 4) Windows is unsafe (virus)
- 5) Windows is not Open Source
- 6) Windows is expensive
- 7) Microsoft is blocking innovations
- 8) You have to know the alternatives to Windows
- 9) Windows = marketing + lawyers
- 10) Windows has no future