Creating a Free World In Computer Classrooms

What We Learned From the NTPC Project

Franklin Weng

May 24, 2014

About me

- A panda

  ~~(Nothing else)~~
- The coordinator of KDE zh_TW l10n team

  Hey, did I go to the wrong place?
- ezgo / NTPC ezgo developer
- A dad of two naughty boys

The Revolution of OS in Taiwan's Schools

8

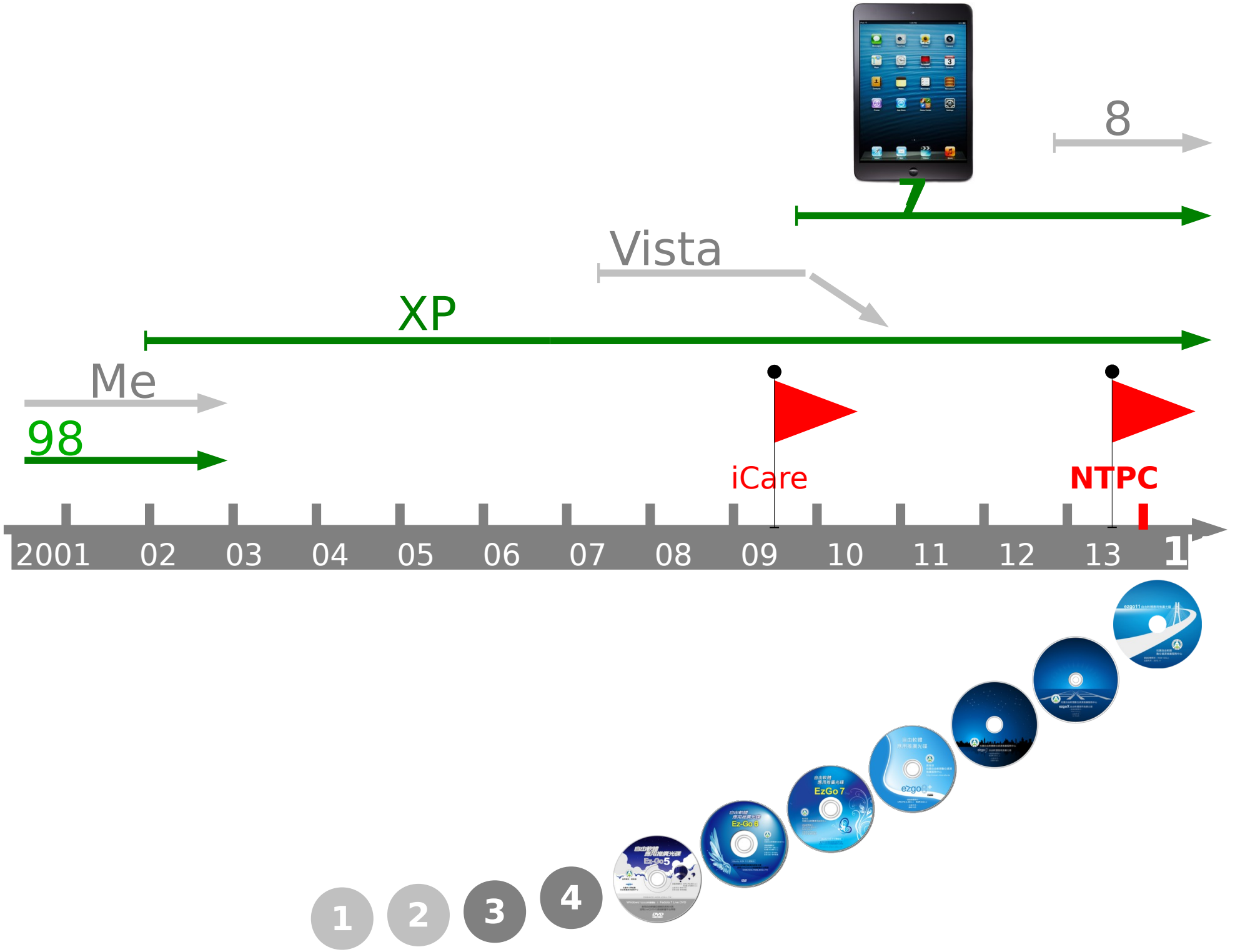
Vista

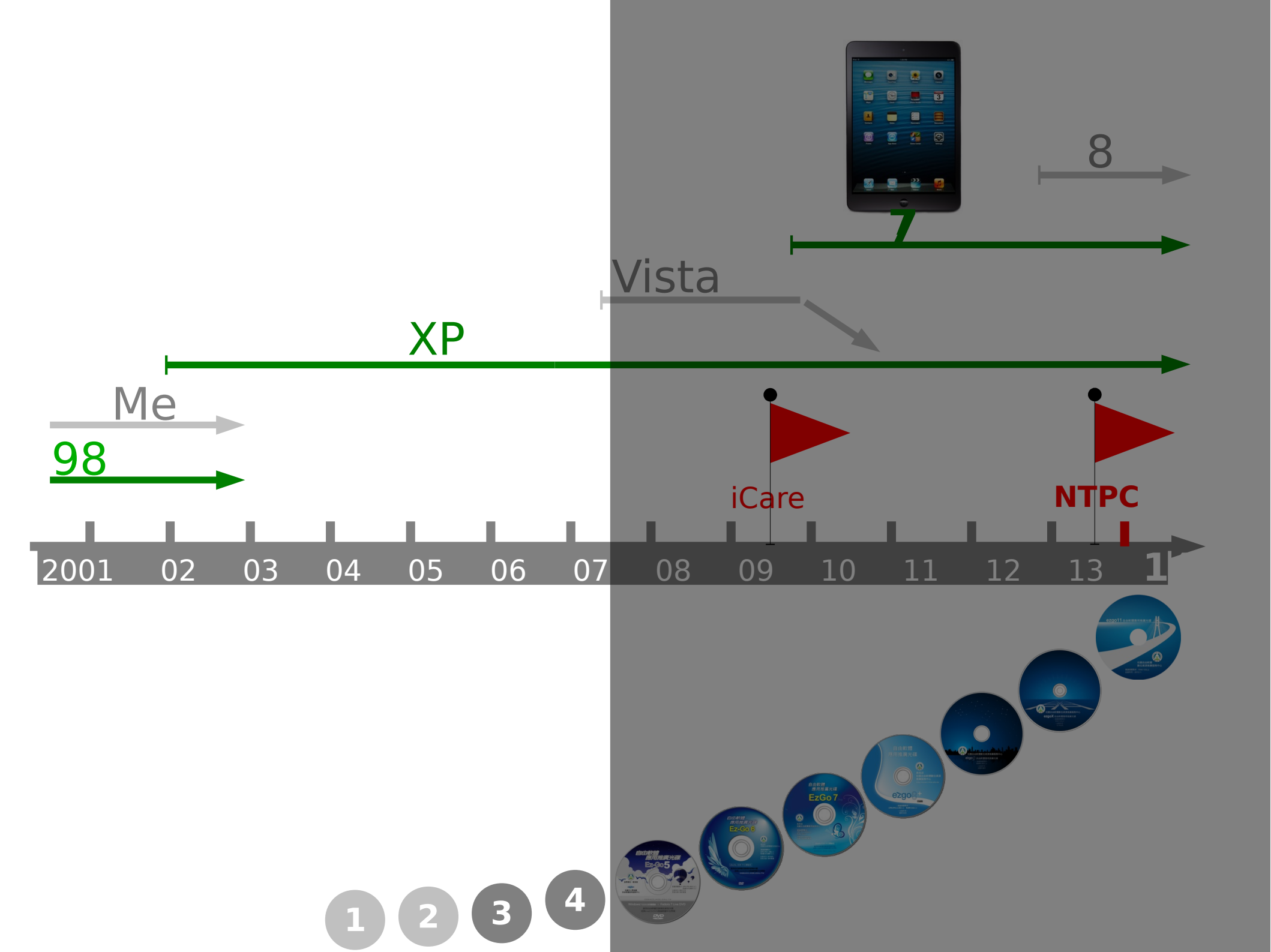
XP

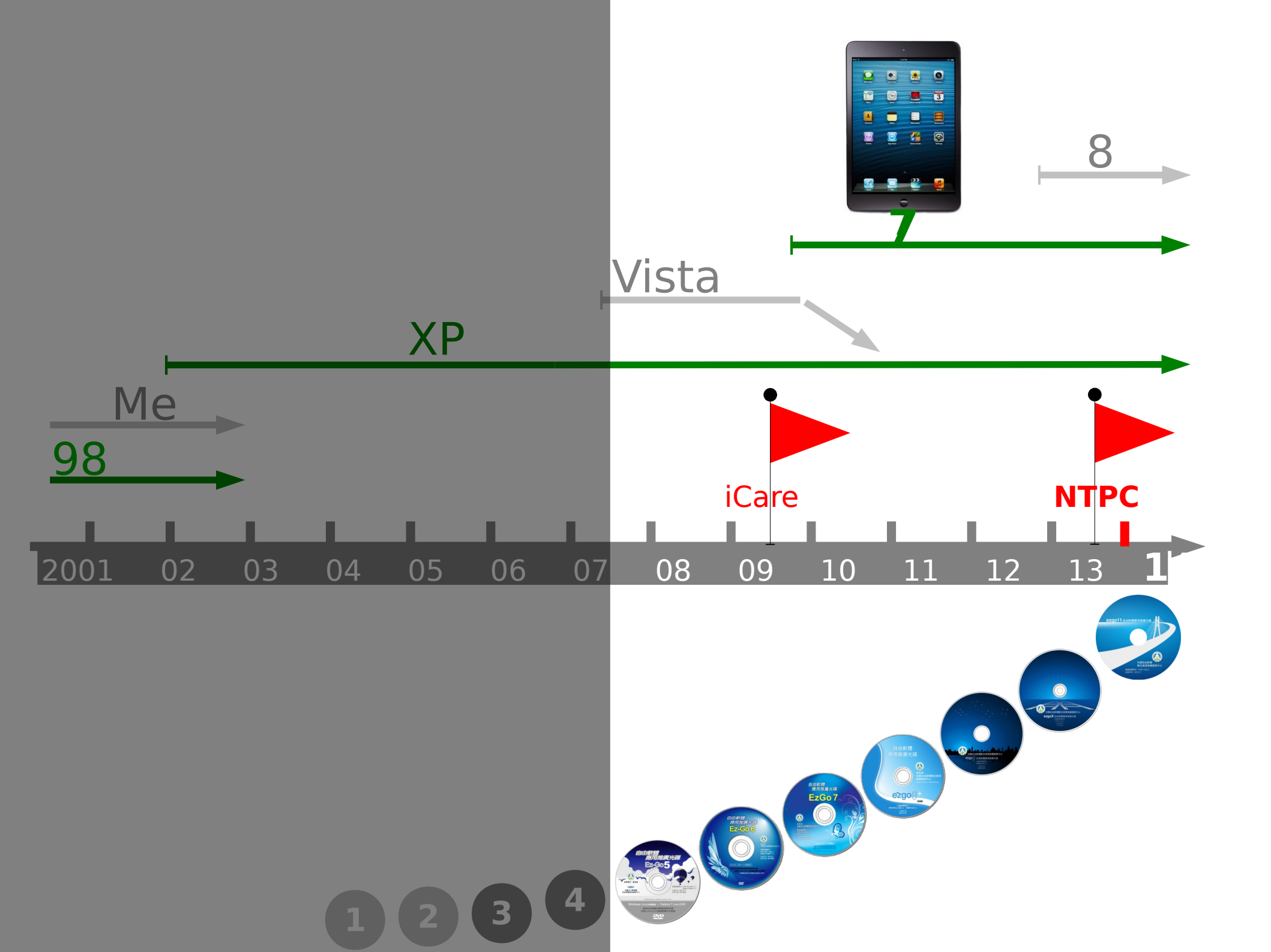
Me

98

2001 02 03 04 05 06 07 08 09 10 11 12 13 14

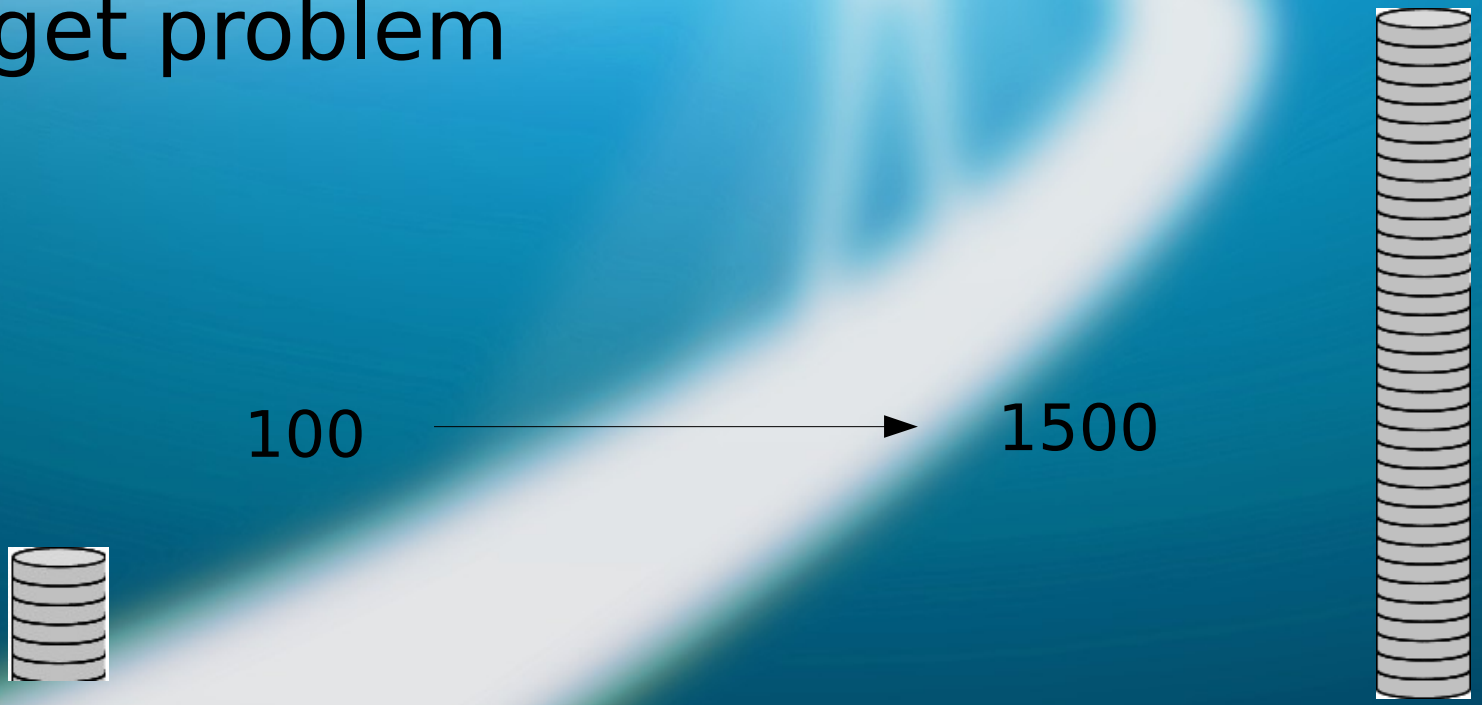

8
7
Vista
XP
Me
98
iCare
NTPC
2001
02
03
04
05
06
07
08
09
10
11
12
13
1
EzGo 7
1
2
3
4


8
7
Vista
XP
Me
98
iCare
NTPC
2001
02
03
04
05
06
07
08
09
10
11
12
13
1
EzGo 7
1
2
3
4


8
Vista
XP
Me
98
iCare
NTPC
2001
02
03
04
05
06
07
08
09
10
11
12
13
1
Ez-Go 5
Ez-Go 6
EzGo 7
1
2
3
4

What is NTPC project?

- New Taipei PC
- Rival bids for purchasing 10,000 PCs for junior high and elementary schools
- Budget problem



Statement from Microsoft®

- Response to a report for NTPC in Linux Pilot (International Chinese Version), Feb. 2014
- ``The license fee of Microsoft® Windows® to education units are always NTD 100. It is not true to raise to NTD 1,500.''
  - 「Windows 對於教育單位的授權一直都是新台幣 100 元，文中提及的大幅提升 15 倍到 1500 元的說法與事實不符，請問這個 1500 元的數據來自何處？」
- The statement is true, but...

NTPC

- Free and Open Source OS in Taiwan's school before NTPC
  - Asked to install dual operation systems
  - Just for check, not really use it
- The first time of ``fully vegetarian''
- A system ``developed by teachers and parent''
- Proved to be useful in computer classes

Problems Teachers Encountered

- Libreoffice 4.x
  - Font problem
  - Compatibility problem with Microsoft® Office® Format
  - Some teachers used Google Doc instead
- Chinese input problem
- Students' work (samba?)
- Recovery problem
- Don't know how to manage these computers

Solution #1: DRBL & Clonezilla

- Diskless Remote Boot in Linux
- Provides a diskless environment
- Much like ``Diskless Workstation'' mode in Debian-edu
- Clonezilla can backup and restore multiple clients at the same time
- Popular in Taiwan, but still needs some skills

Solution #2: Skolelinux

- Merged with Debian-edu in 2003
- Aimed to 6-16 years old computers in school.
- Thin-client, diskless workstation (lowfat), roaming workstation, ... etc.
- A 2-member group runs 200 schools and 70,000 computers in Extramadura, Spain

Extend From NTPC

- Prototype: based on Kubuntu, running KDE
- After learning how to customize live iso files, some other versions were then developed soon, which were based on
  - Ubuntu (Unity)
  - Mint (Gnome)
- To some extents, it made other teachers confused...

What We Learned From NTPC

- Microsoft® Windows® is NOT a must in a computer classroom.
  - Schools in Taiwan spent more than 10 years to learn this. Some even haven't learned yet.
- It's more difficult for teachers (or say, adults) to get used to be ``fully vegetarian'' than kids.
  - Human problems first, then technical problems.
- An interesting question: Should we put games in the system?

Conclusion

- FOSS can work good in school.
- Our goal is NOT to make everyone use FOSS instead of commercial software.
- We want kids to know that, besides Windows®, there is another free world in the world of computer.
- Free, win-win.

Thanks!