Linux will dominate UK schools within 5 years

Yes, it does seem unlikely doesn't it? Windows has been the only reality for several generations of computer users. But is the tide finally beginning to turn?

At the Education Show held in February 2007, the talk was of 'sustainable' computing and how schools could use technology to reduce their 'carbon footprint'. Nobody had any idea of what was to come â€“ a host of Linux-based, ultra-portable, incredibly cheap and very green personal laptops.

Asus's EeePC was the first to arrive in the UK and has been aggressively marketed by RM plc (traditionally a Microsoft supplier). The EeePC sold out within days of its launch. RM's projected sales for the EeePC are 250,000 units in 2008.

At the Education Show this year British supplier Elonex will launch their 'Elonex One' sub-notebook. A Linux-based device that will retail for less than Â£100.

Eighteen months ago it would be unthinkable to make the prediction that by 2013 Linux would supplant Windows as the operating system of choice for most school children. We're now beginning to think the unthinkable. What the new notebooks have in common

- The sub-notebooks are small. Typically they have a 7" screen and weigh under a kilo.
- They use 2 watts to 6 watts of power, have no hard disk or CDROM.
- They have 2-8 GB of solid-state storage and all run Linux as their principle operating system.
- Costs ranges from sub-Â£100 to around Â£200.
- They are very robust products aimed squarely at the 'school bag' but most will also work with the keyboards, mice and monitors already at use in schools. The leading contenders

The One Laptop per Child Project (laptop.org) has the wireless X0-1, is aimed at emerging markets, currently costs less than $200 and runs a version of Red Hat's Fedora Linux.

Intel's Classmate offers two versions of Linux operating systems both using the Red Hat package manager. They also have a Windows XP version.

Asus' EeePC supplied to schools by RM costs less than Â£170 to educational buyers and uses a Debian-based Linux operating system.

Britains' Elonex's 'Elonex-One' and Canada's InkMedia products have emerged very recently, having detachable keyboards, costing less than Â£100 and again using a Debian-derived Linux operating systems.

These products are popular because of their size, their cost and the range of software that they come with. The fact that they run Linux and come with free, open source applications is largely unnoticed by the users. Why Linux and not Windows?

Windows XP Home can run on devices like the EeePc and the Classmate but it is not officially supported by Microsoft and thus obsolete.

Worse still, RM plc is selling their Windows XP Home version of the EeePC to schools for 50% more than the Linux version. A Â£269 notebook will do nothing for school children. Proprietary lock-in tactics so successful in monopolising the desktop, have less effect on a new generation plugged into Web 2.0 and SaaS technologies.

Windows Vista will never be able to run on this new breed of personal computer. Even Becta, the government's quango overseeing the use of ICT by schools, admits Vista is too hungry for power and resources for use by most schools. Microsoft, it appears, simply does not have an operating system ready to fit the new niche. Windows CE is dead and the Pocket PC won't scale up.

Convergence technologies based on Linux are now everywhere - smart phones, set-top boxes, PDAs, satellite navigators, digital photo frames. Any concerns that such devices would be unacceptable to users because they don't run Windows are unfounded. Quite the opposite.

Some go as far as argue that Microsoft has tacitly admitted defeat in as much as they have signed a patent protection agreement with the Linux distributions used by the Classmate (Novell) and the EeePC (Xandros). Summary

Children need access to technology that is affordable, robust and able to bridge the digital divide between rich and poor. This new generation of computers offers just that. Open Source software has made it possible to provide every child with

access to the Internet, high quality office software and to a wide range of graphics and music software. As schools adapt to a new reality - one laptop per child â€“ the only viable, supportable, affordable option is low cost, highly portable laptops running Linux not Windows.