

Crossing the Digital Divide Volume 28

“Really”

by Joseph Feigon

for the Observer

There should be a party. Is it forty, or twenty-five? Who's party is it? We were all invited!

This past week was a vortex of anniversaries: The Internet, The Graphical Web, and Linux. The Internet “happened” roughly 15 years before a young engineer, Marc Andreessen, built the first graphical interface to “search” the Internet, an application called Mosaic, which was the forerunner of Netscape. Linux was the brainchild of Linus Torvalds, a Finnish engineer, who's “little project” launched the Open Source (Free) movement, and fueled the algorithmic growth of software, applications, and infrastructure much of the world's population enjoys daily.

This week, my focus is Linux, and why, in many circles, the Free Software movement is not unlike the ideals of the 60's, without the tie-dye.

Linus Torvalds (whom I've met more than once), believed that peer review would identify shortcomings in his software coding (it did and continues to do so). Linux is really all about the “kernel”, or core brains of a computer operating system. What was so radical in 1990 was the challenge to traditional Information Systems models: you had a problem, you called the vendor. Since there was no vendor for Linux (until Redhat happened), corporate America was reluctant to embrace the new, extremely powerful, Unix-like operating system that would run on commodity hardware (Intel x86 CPU's), without license fee, without restriction, **and**, with full access to the SOURCE code, allowing those skilled enough to write or modify their own applications.

This is non-trivial. Prior to GNU Linux (GNU is an open source license model), if an organization needed changes to their application suite, they were beholden to their software/hardware vendors. HP, IBM, Sun Microsystems and Compaq all had their own Unix implementations, and then there was Microsoft, with their own vision of the future. Most traditional companies in America opted for “proven” and “supported”, but there was a revolution happening, venture capital and start-up mania was taking over Silicon Valley. While money was flowing free and fast, the smartest and the best were constantly seeking quicker, more reliable, more extensible ways to reach an ever increasing global audience.

With minor exception, the early adopters and survivors all embraced Open Source as a means to success and profit. With the rapid growth of “search providers”, the likes of Yahoo, Google, and Amazon built their infrastructure around free software and commodity hardware. Linux is the core of Android, which most of the cellphones and smartphones use today. Linux is the operating system more than 80% of the web, email and nameservers running in data centers across the planet.

If I haven't lost you yet, here's why free software will free us all. Linus Torvalds gave his code away to the world with one stipulation: Do what you want with my work, pass it along to others. If you make changes, or additions, feel free to charge for your work, but the source code upon which you build your application must remain open and free.

This is major: go ahead, add value, sell value, but don't take money for something I gave away.

Here's a sampling of the biggest users of Linux today:

Amazon
IBM
Google
Cisco
US Department of Defense
US Postal Service
New York Stock Exchange
Wikipedia
Sony Playstation
Virgin Airlines
US Federal Courts

We can be thankful that Mr. Torvalds generously gave away his pet project. Linux is and can be run on computing devices large and small, from PC to toaster, Dodge RAM to AC control. The growth in network services (well, except here in Mendocino County) can be attributed to the success of the Open Source model. Anyone with an idea, a few hundred dollars for a decent computer, an Internet connection, and some coding ability could well become the next Amazon.

Now, if we could just get some fiber to our community, we might be able to celebrate with some streaming media!