The Linux Effect: 20th Anniversary
Linux - Origins

BLAINE:
Hello, I'm Blaine Price Senior Lecturer in Computing at The Open University. It is the 20th anniversary of the Linux Operating System. This is its story.
 [Music: Dark double basses, cellos with a disconcerting cor anglais melody]

At the end of 1970s computing was becoming a closed world. Operating systems were jealously guarded and their source code was kept secret.   The major scientific and business operating system was UNIX. UNIX was effectively an operating system specification, a rulebook. To play by the rules cost a lot of money so big corporations and institution held all the cards. Every part of the UNIX system was owned and protected.

Richard Stallman was not happy with this constrained world, so he decided to free it.

BLAINE:
A child of the 60s, Richard was all about freedom. Man.

Richard Stallman
"I joined the M.I.T. Artificial Intelligence Lab in 1971. I joined a thriving community of hackers, people who loved programming, loved exploring what they could do with computers."

BLAINE:
At that time software was just passed around between people, between friends. But as the 70s gave way to the 80s the corporations who owned the software started to lock it down.

Richard Stallman
"…to get one of the modern computers of the day, which was the early 80s, you would have to get a proprietary operating system, but the developers of those systems, didn't share with other people, instead they tried to control the users, dominated the users, restricted them, saying: to get this system, you have to sign a promise you won't share it with anybody else. And to me that was essentially a promise to be a bad person, to betray or cut myself off from society, from the cooperating community."

BLAINE:
So what does a community minded operating system developer do when he can't find a free operating system?

Richard Stallman
"I actually began a project in January of 1984, that's when I resigned from my job at M.I.T. to start developing the GNU operating system. Now, I should explain that the name GNU is a hack, because it's a recursive acronym. It stands for Gnu's Not Unix, you see, so that G-N -U stands for GNU"

BLAINE:
Richards aim was to replace the complete set of jigsaw pieces that made up the UNIX operating system with free alternatives.

Andrew Smith
"You get those who really need something and they can see that there's nothing out there, or there's nothing free out there so they work on developing it themselves"

BLAINE:

My colleague at the Open University Andrew Smith explains how for GNU necessity was often the mother of invention.

Andrew Smith
"If people are interested in it and people discover it and they've put the message out then it will develop and it will evolve "

BLAINE:
By 1991 GNUs evolution was well under way, all the pieces were in place bar one.

Andrew Smith
"All operating systems have a kernel, it is the core of the operating system it is the engine that's running the entire system"
[Music: Sonic Germinations]

BLAINE:
Meanwhile Finnish student, Linus Torvalds was working on an engine of his own, an open source kernel named Linux.

Linus Torvalds
" The initial goal was my very personal goal, to be able to run a similar environment on my computer that I had grown used to at the university computers. And I could not find anything suitable for that. So, having been doing computers for all my life basically, at that point I just decided I would do my own."

BLAINE:
Linus fired up his computer in Helsinki and posted one of the most ironic entries in computing history. "Hello everybody out there," he typed "I'm doing a FREE operating system, it's just a hobby, won't be anything big and professional like gnu."

Richard Stallman
" When Linus developed his kernel, he wasn't doing it for the GNU Project….. "

BLAINE:
Richard Stallman again

Richard Stallman
" …..he did it independently and he released it independently and we didn't know about it. But some of the people who did know about it, decided to look for what else they could find to put together with that kernel to make a whole system."

Linus Torvalds …there is a symbiosis between Linux and the programs; so, the programs run on Linux and at the same time – and they take advantage of Linux as a platform, while Linux takes advantage of the programs just by being able to use them.

BLAINE:
It was the user community, not Richard or Linus, who saw the marriage potential and brought the kernel and the GNU pieces together to make the complete Linux system. This spirit of cooperation and sharing is the driving force behind Linux, a free software movement that changed the world.