Dennis Ritchie: Unix

Unix is the earliest operating systems made which allowed for home computing. One of its focus and sale was to bring computers from the work place to home. Before Unix, there were no personal computers as only large corporations could afford the large computers of the past. Mini computers were the first computers that allowed departments of different organizations to afford a computer for their use but were not personal computers as we know them today. Unix had different components, which include: Kernal, Shell, and Utilities. Unix OS is still used by today’s OS’s. Some of the OS’ available today which utilize Unix are Amazon Kindles, Mac OS 10 and some versions of Linux.

Bjarne Stroustrup: C++

In the past, people wrote code to directly work on specific hardware and because of this much of the code was specialized to certain systems. C++ was different because it was used to make languages that would fit all domains, not just linear algebra and business. Simula is something that was built for that. If we take ideas from Simula for general abstraction, it makes it easier for us humans to understand it with lower level problems. We took C, an already established language at bell labs, and Simula and combined them to allow for higher level abstraction. C++’s popularity comes from the ability to have efficient and high levels of abstractions which can allow for the development of a stable infrastructure. You can access various types of hardware directly instead of relying of its specialized code through C++. This is all overall good for infrastructure in general because infrastructure needs stability as it needs to be viable for decades without needing code to be rewritten.

Bell Labs Unix:

A lot of the things from this video were the same or similar to the first video. Programmers need a good programming environment, teams and people to make it more enjoyable and less stressful. Something mentioned in this video is that you should make software very change tolerant. This is so you don’t have to change up the code every year when something needs to be changed. If you do it with smaller lines of code it is easier to just go in and fix and change what you need to edit. Unix is made up three layers: the Kernal, Shell and utilities. All three are the building blocks of programming. The difference of UNIX compared to others is that those building blocks can be mashed together in unique ways to solve several problems in an easer way than other programs.

Linus Torvalds: The mind behind Linux

Linux did not start as an open source, instead it was a personal project that was opened to others through invitation. Linux is a community driven project that allowed for different ideas to be shared with its creator Linus Torvalds. Torvalds preferred to work alone so he created Git as a management system for the development of Linux as he greatly opposed using CVS. Since Linux was open source, it allowed people to go in different directions than the initial goal set by Torvalds. It was expanded beyond even what he thought of as people were focused on different aspects of Linux. Something important to Torvalds in the development of Linux is a sense of taste in code, which looks at the way code is written. Bad taste is unnecessary code while good taste is taking that bad code and rewriting it to something more practical.