Introduction to Linux

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- **..or maybe you don't**

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What is Linux

- **UNIX clone for PC clones**

- **Source compatible with UNIX**
  - **POSIX**
  - **SVR4 and BSD extensions**

- **Implements full UNIX semantics**
  - **virtual memory with memory mapping**
  - **networking**
  - **interprocess communications**
  - **filesystems**

You want Linux?

- **Good hardware support**
  - **drivers for most PC peripherals**
  - **coprocessor emulation**

- **Co-exists peacefully with other PC operating systems**

- **Personal, professional, academic use**
  - **low cost**
  - **expandable**
  - **configurable**

- **Technical superiority**

..or maybe you don't

- ## Lack of

  - **support**

  - **documentation**

  - **commercial programs**

  - **trust**

- ## Technical problems

  - **Limited hardware base**

  - **Young code**

Motivation

- ## Why re-write UNIX?
    - ### DOS, DOS and DOS
    - ### high cost

- ## do-it-yourself UNIX:
    - ### ignorance
    - ### arrogance
    - ### perseverance
    - ### inspiration

History

- ## Dates and Events:

  - ### April 1991: terminal emulator

  - ### September 1991: making it public

  - ### December 1991: virtual memory

  - ### May 1992: X11R5

  - ### March 1994: Linux 1.0

Making it Free

- ## Advantages

    - **motivation**

    - **feedback**

    - **ideas**

    - **testing**

    - **coding**

- ## Disadvantages

    - **negative comments**

    - **somebody "taking advantage" of it**

    - **no economic gain**

Current State

- **Large User base**

  – **biggest PC UNIX?**

- **Several different distributions**

  – **CDROM,**

  – **disk copying services**

- **Media Recognition**

Future

- **Continued development**

  - **new development tree: v1.1.x**

- **Source compatibility**

  - **ratifying standards**

- **Binary compatibility**

  - **with DOS: dosemu**

  - **with iBCS2: loadable personalities**

  - **with Microsoft Windows: Wine, Wabi, ...**

Future 2

- ## Porting to other platforms

    - **MC680x0 port at 1.0 level**

    - **Discussions about PowerPC and other RISC ports**

- ## Documentation and Support

    - **books about Linux**

    - **companies using and supporting Linux**