



# INTRODUCING T<sup>4</sup>: TIPS, TRICKS, TOOLS AND TOYS

COMPOUNDING LOTS OF SMALL CHANGES FOR LARGER EFFECTS

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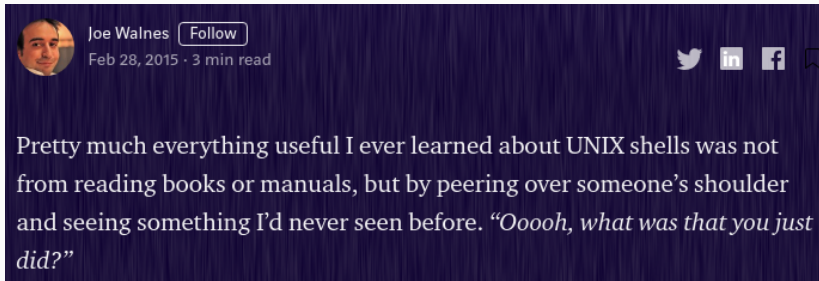
Dirk Edelbuettel

T<sup>4</sup> Video Lightning Talk

May 3, 2020

## New Series of Video Lightning Talks

- Why
- What
- How



A screenshot of a Medium article preview. The background is dark blue with a subtle pattern. At the top left is a circular profile picture of Joe Walnes. To its right, the name "Joe Walnes" is displayed in white, followed by a white "Follow" button. Below the name, the date "Feb 28, 2015" and "3 min read" are shown. On the right side, there are icons for Twitter, LinkedIn, Facebook, and a bookmark icon. The main text of the article is in white, starting with "Pretty much everything useful I ever learned about UNIX shells was not from reading books or manuals, but by peering over someone's shoulder and seeing something I'd never seen before. *“Ooooh, what was that you just did?”*”

Joe Walnes [Follow](#)

Feb 28, 2015 · 3 min read

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Pretty much everything useful I ever learned about UNIX shells was not from reading books or manuals, but by peering over someone's shoulder and seeing something I'd never seen before. *“Ooooh, what was that you just did?”*

Source: Joe's *awesome* post on shell process substitution

<https://medium.com/@joewalnes/handy-bash-feature-process-substitution-8eb6dce68133>

## No aims to be complete or comprehensive

- Aiming for a series of *lightning talks*
- Will try to show just one topic in each
- With maybe one or two or ... tips
- The format is not fleshed out yet
- ... but been meaning to do this for a while now

## Not a “Be All, End All”

- This is meant to be *informal*
- And just like a *family style* dinner
- Maybe take some, ignore others, combine at will

## Overall Spirit of a 'Computing Bootcamp'

- A little like the famous [Missing Semester of your CS](#) at MIT
- Or my [STAT 430 Data Science Programming Methods](#) class
- *but* much reduced to minimal value-added snippets
- *assuming* you have *at least some* basis
- Because we do not plan to be as exhaustive as those

## And What Not

- We are not trying to pick sides
- We are simply showing what works for us
- So yes this will be *Linux-centric* ...
- ... *but* will also work on Windows and macOS
- As one key point is *system independence*

## To retire

- We aim for: *universal, portable, cross-OS, cross-Application*
- And not: OS-specific, vendor-specific, language-specific
- The idea is that a Unix-style command shell is *everywhere*:
  - your terminal app
  - your cloud console
  - your remote computer
  - your phone (yep, if you want)



# WHAT (OR A LITTLE WHY)



The screenshot shows a Google Chrome browser window displaying the Wikipedia article "In the Beginning... Was the Command Line". The browser's address bar shows the URL "en.wikipedia.org/wiki/In\_the\_Beginning...Was\_the\_Command\_Line". The article's title is prominently displayed at the top of the content area. Below the title, there is a sub-header "From Wikipedia, the free encyclopedia". The main text of the article begins with "In the Beginning... Was the Command Line is an essay by Neal Stephenson which was originally published online in 1999 and later made available in book form (November 1999, ISBN 978-0380815937). The essay is a commentary on why the proprietary operating systems business is unlikely to remain profitable in the future because of competition from free software. It also analyzes the corporate/collective culture of the Microsoft, Apple, and free software communities." To the right of the text is a book cover for "Neal Stephenson" featuring a computer keyboard. A "Contents" box is visible, listing sections: 1 Themes, 2 Later developments, 3 See also, 4 References, and 5 External links. Below the contents is a "Themes" section with an "edit" link. The left sidebar contains various navigation links for Wikipedia, including "Main page", "Contents", "Featured content", "Current events", "Random article", "Donate to Wikipedia", "Wikipedia store", "Interaction", "Help", "About Wikipedia", "Community portal", "Recent changes", "Contact page", "Tools", "What links here", "Related changes", "Upload file", "Special pages", "Permanent link", "Page information", and "Wikidata item".

In the Beginning... Was the Command Line

From Wikipedia, the free encyclopedia

*In the Beginning... Was the Command Line* is an essay by Neal Stephenson which was originally published online in 1999 and later made available in book form (November 1999, ISBN 978-0380815937). The essay is a commentary on why the proprietary operating systems business is unlikely to remain profitable in the future because of competition from free software. It also analyzes the corporate/collective culture of the Microsoft, Apple, and free software communities.

**Contents** [hide]

- 1 Themes
- 2 Later developments
- 3 See also
- 4 References
- 5 External links

**Themes** [ edit ]

Stephenson explores the GUI as a metaphor in terms of the increasing interposition of abstractions between humans and the actual workings of devices (in a similar manner to *Zen and the Art of Motorcycle Maintenance*)<sup>[citation needed]</sup> and explains the beauty hackers feel in good-quality tools. He does this with a car analogy. He compares four operating systems, Mac OS by Apple Computer to a luxury European car, Windows by Microsoft to a station wagon, Linux to a free truck, and BeOS to a hotrod. Stephenson argues that people continue to buy the station wagon

## Key Topics

- **Shell**, *i.e.* some little **bash** tricks
- **Tmux/Byobu**, *i.e.* to put your shell use on steroids
- **Emacs**: daemon mode and emacsclient, magic, ess, packages, ...
- Maybe a little bit of **R**
- Maybe a little bit of **Docker**

So yes, we're picking *one* side because, seriously, there is only one editor. But if *you* like another one, that's cool too. We pick and choose.

## Short and Sweet

- Similar to the  $R^4$  videos:
  - A few slides with background material, links, ...
  - A video
  - And that's it
- Hopefully once a week

# THANK YOU!

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