

Learning from the Carpentries

Lex Nederbragt

June 26, 2019

Welcome

About this talk

Carpentries Instructor Training



Home



Instructor Training

Workshop Introductions

Workshop Introductions

“Introductions should both include practical information and start building relationships”

Workshop Introductions

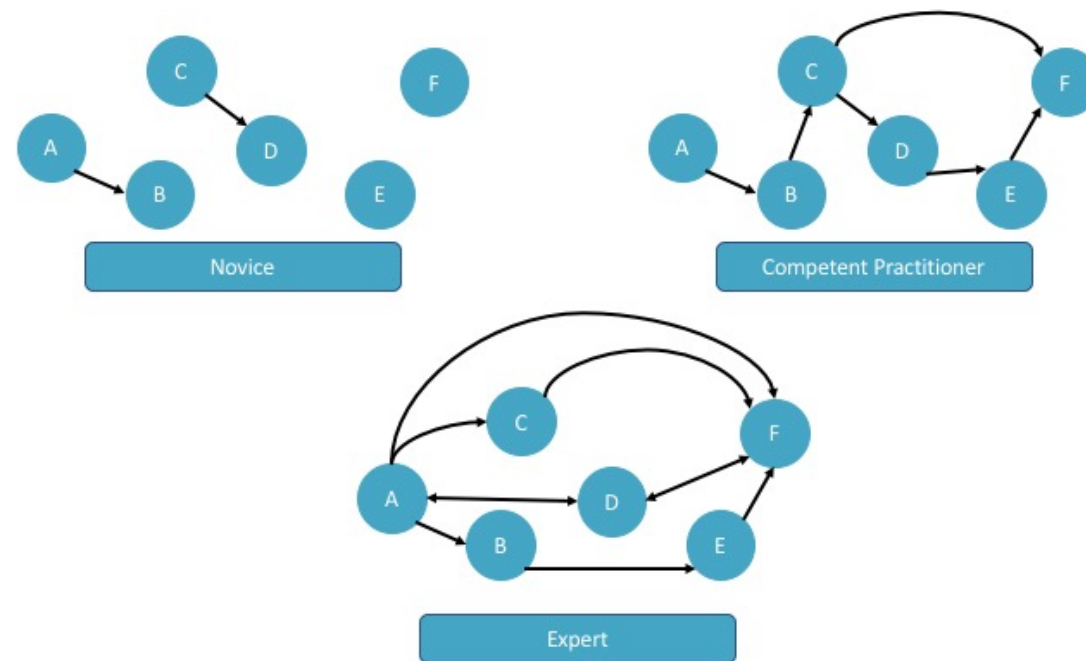


Building Skill With Practice

Building Skill With Practice

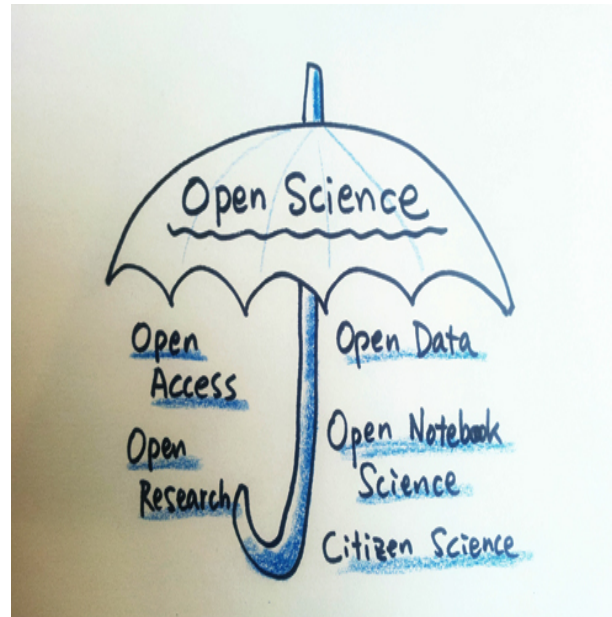


Building Skill With Practice



Expertise and Instruction

Expertise and Instruction



Flickr

Expertise and Instruction



Jon Tennant 

@Protohedgehog

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If you have ever shared data, code, or made research papers freely available, you are an open scientist. You don't have to 'do open science' all the time. It's about knowing what options are available to you, and using them when possible. Small steps can make a huge difference.

11:44 PM - 11 Apr 2019 from [Brussels, Belgium](#)

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Morning Break



Instructor Training



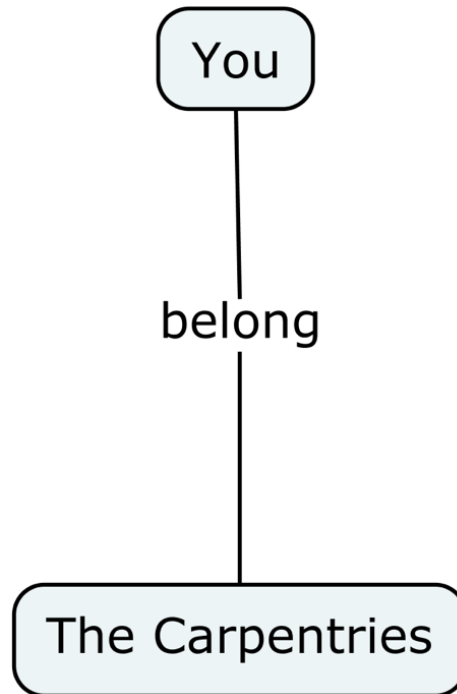
Morning Break

Overview

Break: 15 min

Memory and Cognitive Load

Memory and Cognitive Load

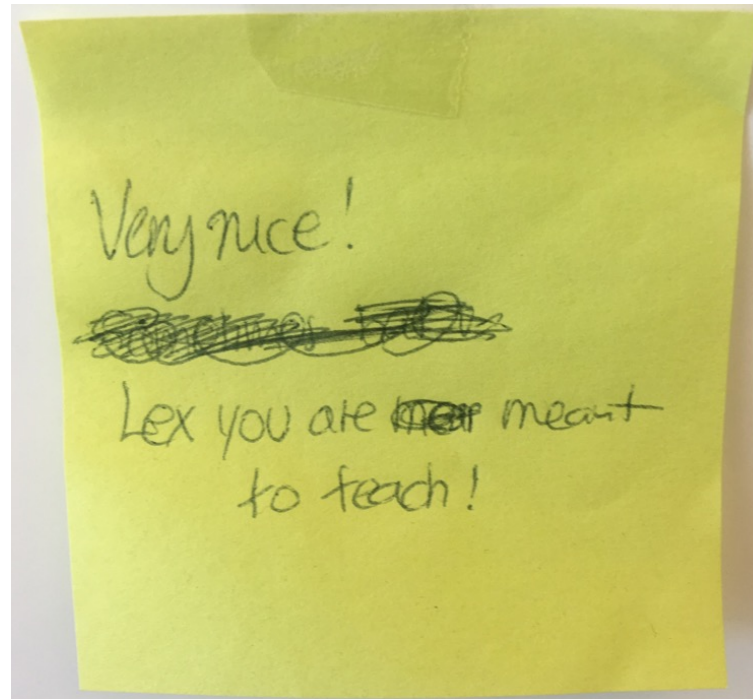


Building Skill With Feedback

Building Skill With Feedback



Building Skill With Feedback



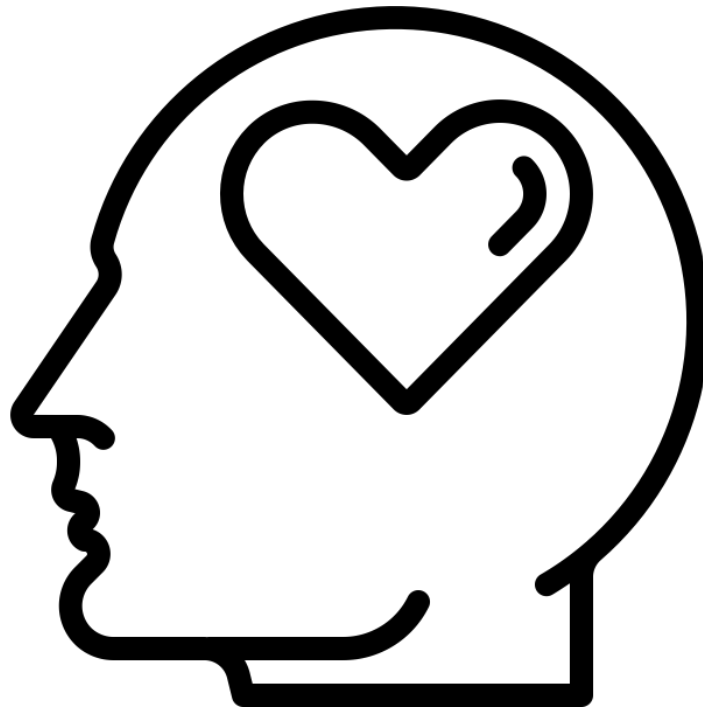
Motivation and Demotivation

Motivation and Demotivation

Brainstorming Demotivational Experiences

Think back to a time when you were demotivated as a student (or when you demotivated a student).

Motivation and Demotivation

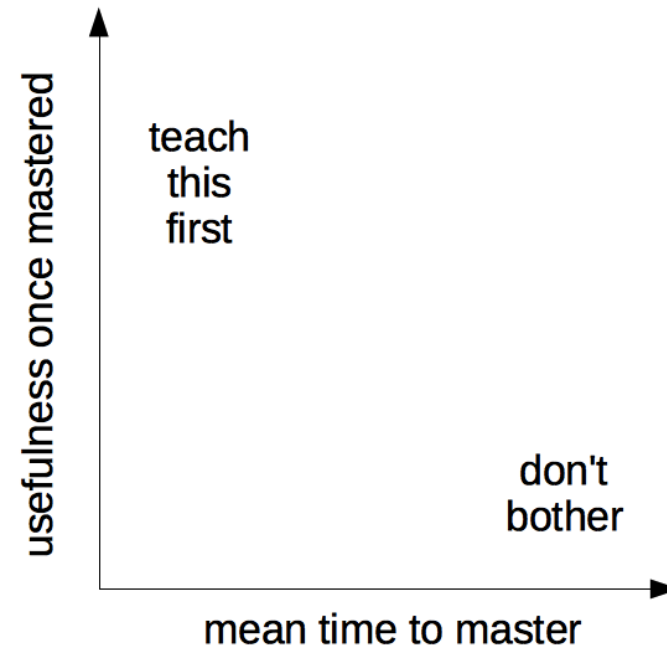


Motivation and Demotivation

**“Before you can take care of other people
you first need to take care of yourself”**

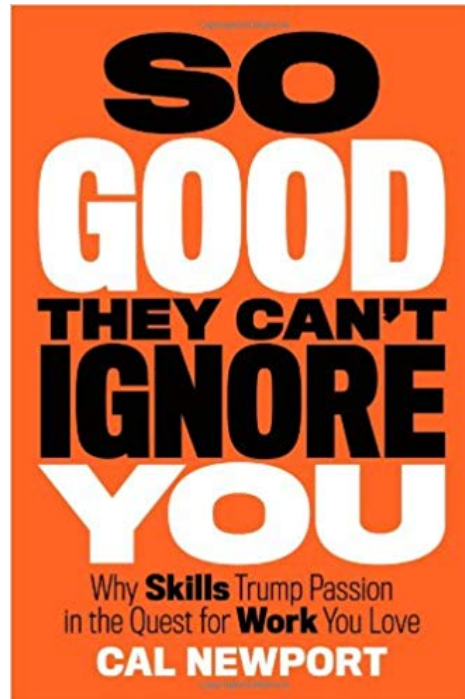
Toby Hodges, carpentries.org/blog/2019/04/idc-reflection

Motivation and Demotivation



no

Motivation and Demotivation



Mindset

Mindset

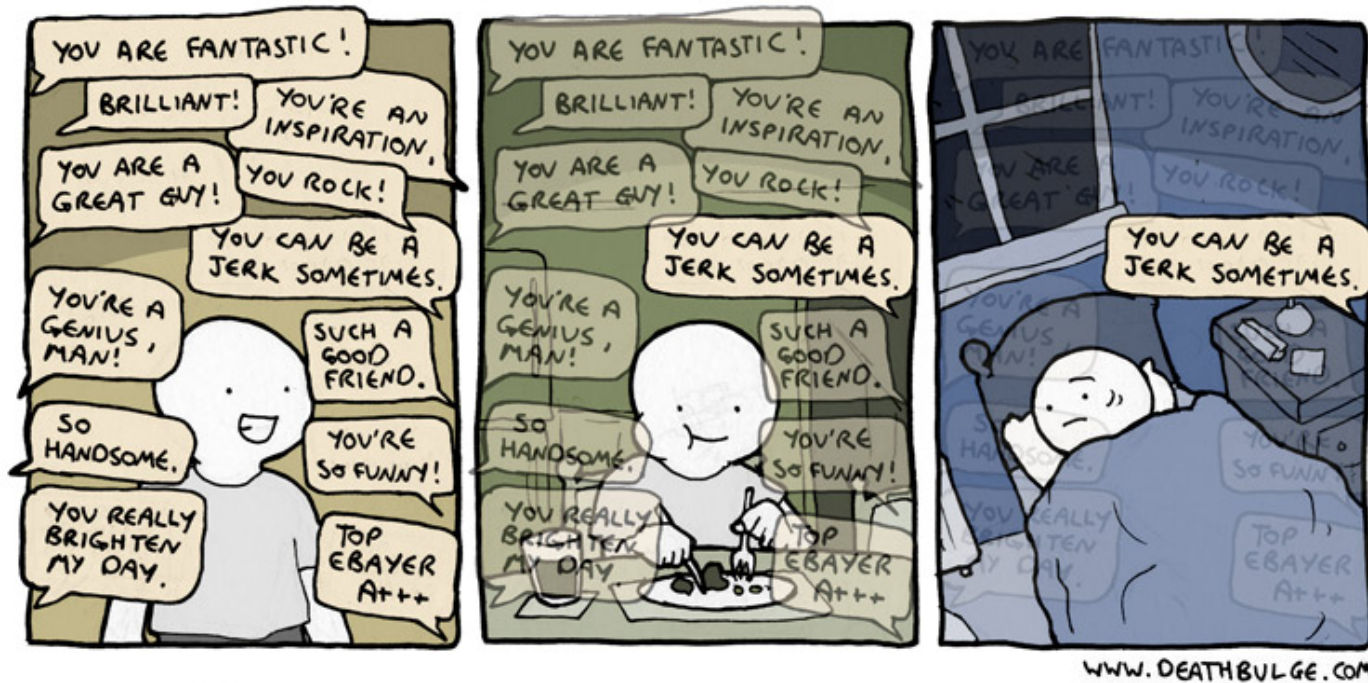
Errors are Essential to Learning

The typos are the pedagogy.

— Emily Jane McTavish

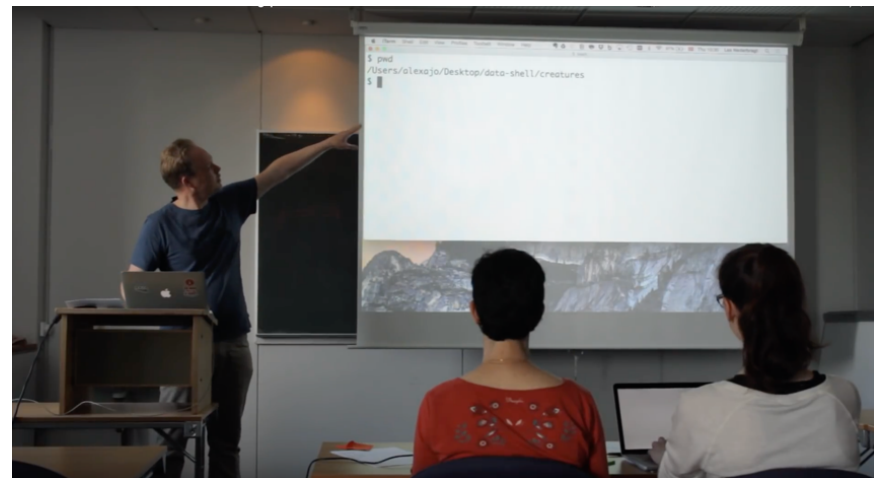
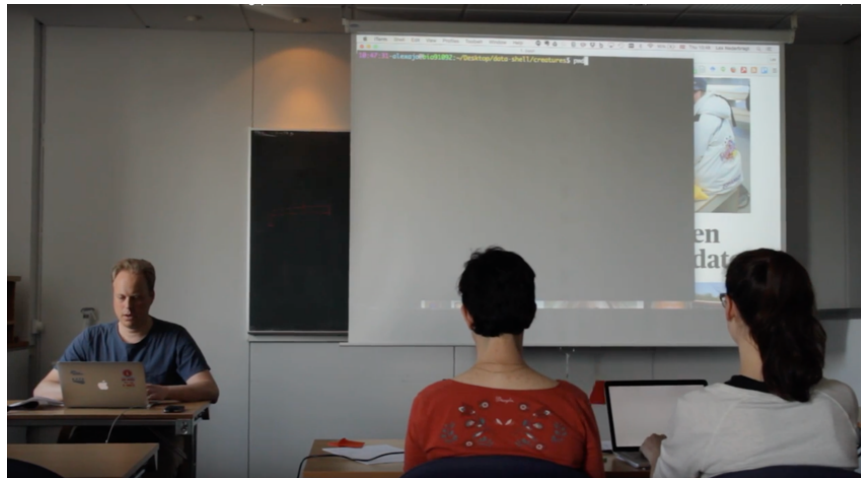
Teaching is a Skill

Teaching is a Skill



Live Coding is a Skill

Live Coding is a Skill



Scaling Participatory Live Coding



Lex Nederbragt

@lexnederbragt

I thought [@swcarpentry](#) live-coding approach wouldn't scale to large undergrad Python course and that I could do without it. I was 2x wrong

5:09 PM - 8 Nov 2017

Scaling Participatory Live Coding



Scaling Participatory Live Coding



Scaling Participatory Live Coding



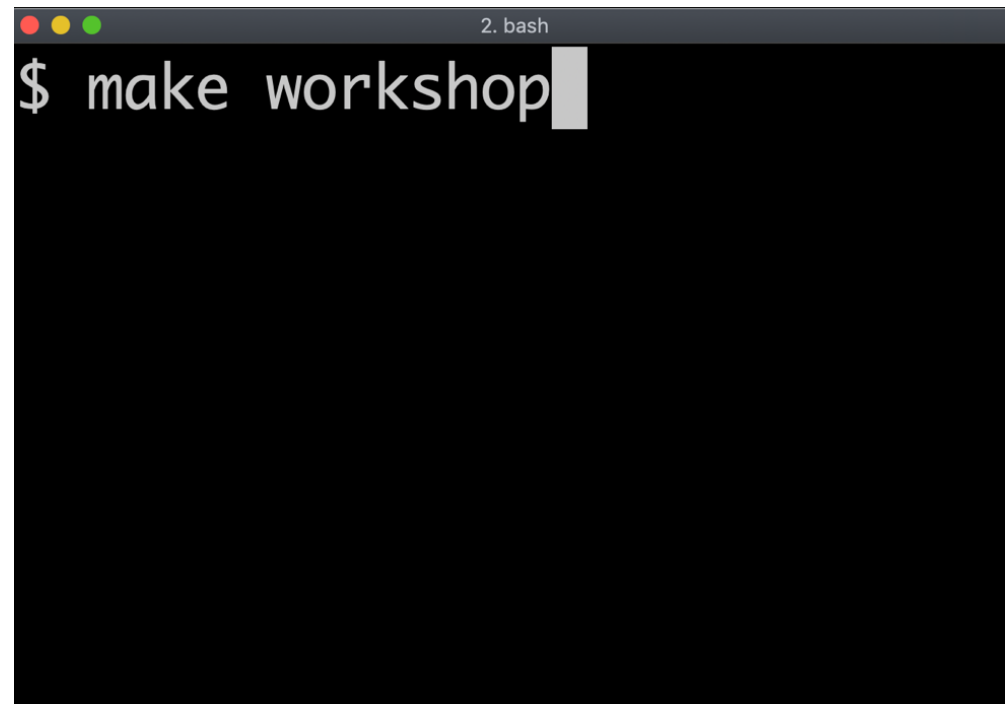
Preparing to Teach

Preparing to Teach



Learner profiles

Preparing to Teach

A terminal window with a dark background and a light gray title bar. The title bar contains three colored window control buttons (red, yellow, green) on the left and the text '2. bash' on the right. The terminal displays a prompt character '\$' followed by the text 'make workshop' and a white cursor block at the end of the line.

```
2. bash  
$ make workshop
```

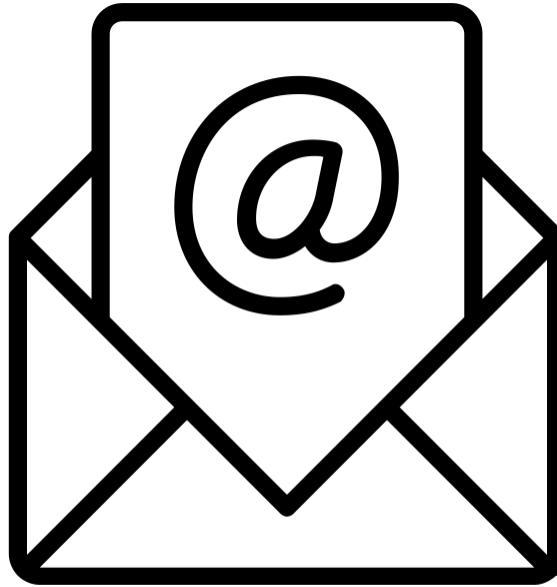
Checkout Process

Checkout Process



The Carpentries: How We Operate

The Carpentries: How We Operate



Created by ProSymbols
from Noun Project

Putting It Together

Putting It Together



Putting It Together

- What have I learned from the Carpentries
- What can we all learn from the Carpentries

Learning from the Carpentries



Learning from the Carpentries



Learning from the Carpentries

OPEN  ACCESS Freely available online

 **PLOS** | BIOLOGY

Community Page

Best Practices for Scientific Computing

Greg Wilson^{1*}, D. A. Aruliah², C. Titus Brown³, Neil P. Chue Hong⁴, Matt Davis⁵, Richard T. Guy^{6¶}, Steven H. D. Haddock⁷, Kathryn D. Huff⁸, Ian M. Mitchell⁹, Mark D. Plumbley¹⁰, Ben Waugh¹¹, Ethan P. White¹², Paul Wilson¹³

doi.org/10.1371/journal.pbio.1001745

Learning from the Carpentries



PERSPECTIVE

Good enough practices in scientific computing

Greg Wilson¹*, Jennifer Bryan², Karen Cranston³, Justin Kitzes⁴, Lex Nederbragt⁵,
Tracy K. Teal⁶

<https://doi.org/10.1371/journal.pcbi.1005510>

You are good enough!



phenomenal yetti

@PhenomenalYetti

Follow

Sometimes you have to remind yourself in the midst of all the chaos that you are doing your best. And that's all that matters.

8:25 AM - 24 Oct 2018

11 Retweets 22 Likes



1



11



22

twitter.com/PhenomenalYetti

You are good enough!

Link to slides: doi.org/10.6084/m9.figshare.8287973

Image credits

- The Carpentries instructor Training materials
- Open science umbrella: <https://flic.kr/p/gxKYeW>
- tweet by Jon Tenannt:
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- tweet by phenomenal yetti
<https://twitter.com/PhenomenalYetti/status/1055117997076082690>
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