

Ten simple rules for

Making a (great great) MSc at BiRC!

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☰ 10 simple ...



Introduction

This is a quick guide; very much inspired by the famous 10 rules series of PLoS Computational Biology.

The screenshot shows a journal article page from PLOS Computational Biology. At the top, the journal title 'PLOS COMPUTATIONAL BIOLOGY' is displayed in large, bold, black and blue letters. Below the title, there is a small icon of a lock followed by the text 'OPEN ACCESS'. Underneath that, the word 'EDITORIAL' is written. The main title of the article is 'Ten Simple Rules for Graduate Students', which is prominently displayed in large, bold, black font. Below the main title, the authors are listed as 'Jenny Gu, Philip E Bourne' with an envelope icon indicating email. At the bottom of the screenshot, the publication information is provided: 'Published: November 30, 2007 • <https://doi.org/10.1371/journal.pcbi.0030229>'.

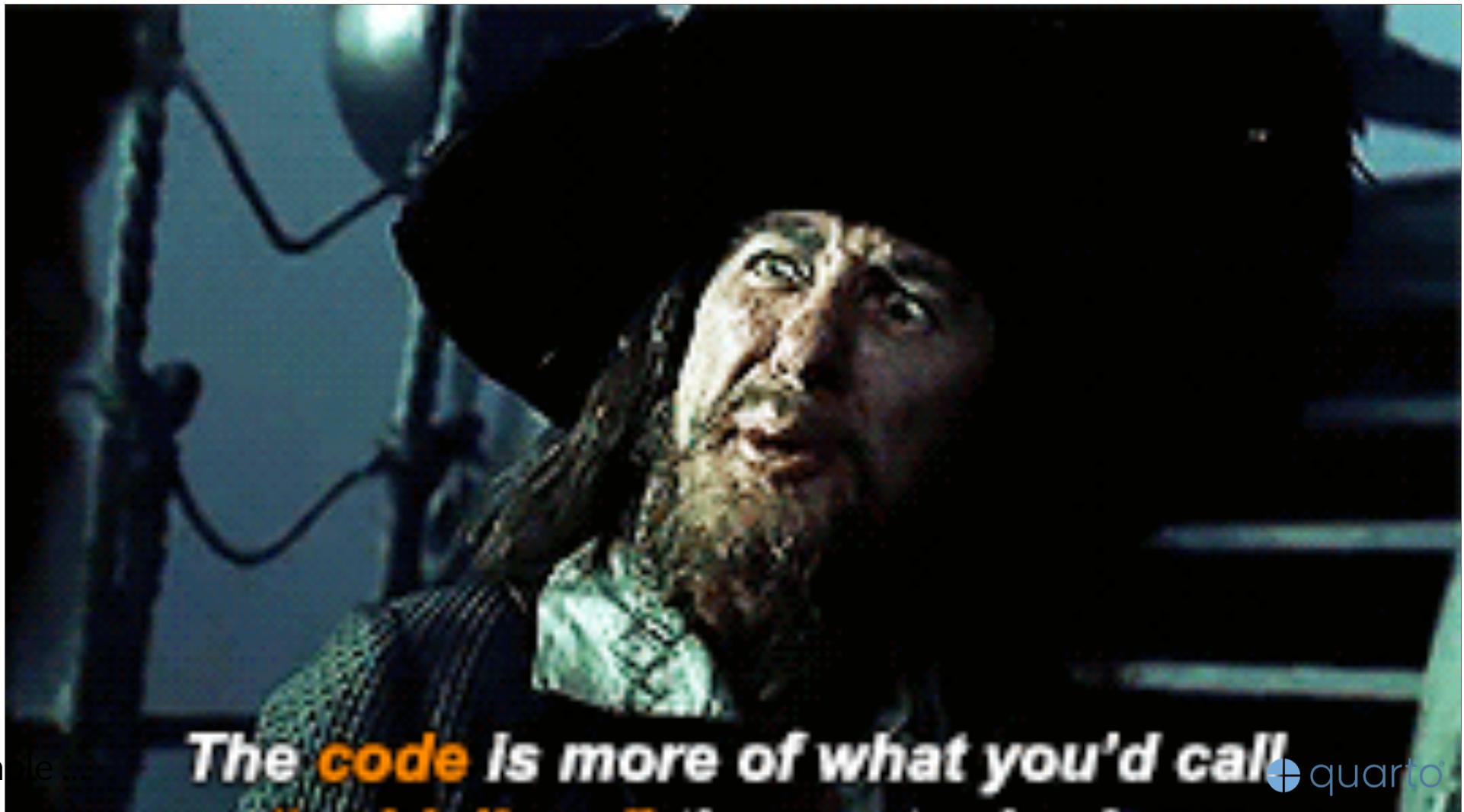
We still think it is a good read!

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?!¿ 10 Simple rules ?!¿

Well, first & foremost...



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The **code** is more of what you'd call  **quarto**

"guidelines" than actual rules.

Rule 1: Find a good match: project and supervisor(s)

- There are no good/ bad supervisors but there can be good/bad match.
- Find a project topic that matches your interest so you can have some drive for the next 4-5 months

Rule 2: Sketch the project and the contract

Is it going to be a Theory? Data Analysis ? project ??

- Be (crystal) clear about that
- Are the essential building blocks (eg data) available ?
- Is this a project you can write clearly about ? (2 paragraphs)
- If not ... think again ...

Cluster or no cluster ?



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- Do you need the use of the cluster for your project ?
- Pros and Cons
- If you do not have much previous experience, time to get started ASAP

¿ Github or not Github ?

- a worthy skill
- can be a PIB goal
- take the time to get used to Git
- ask around ..

Many tutorials and lots of R / python IDEs interfacing it

Rule 3: Start early

Nobody counts when you started your project but everything stops by end of May/ December

So :

- Start early ..
- Read / write for yourself
- Ask Qs

Rule 4 Summarize your work, start to write early

- The more you keep electronic notebooks the easier it will be to “put it all together”
- Writing early about your stuff forces you to check how much you have digested / understood

Rule 5: Ask for help.. earlier than later

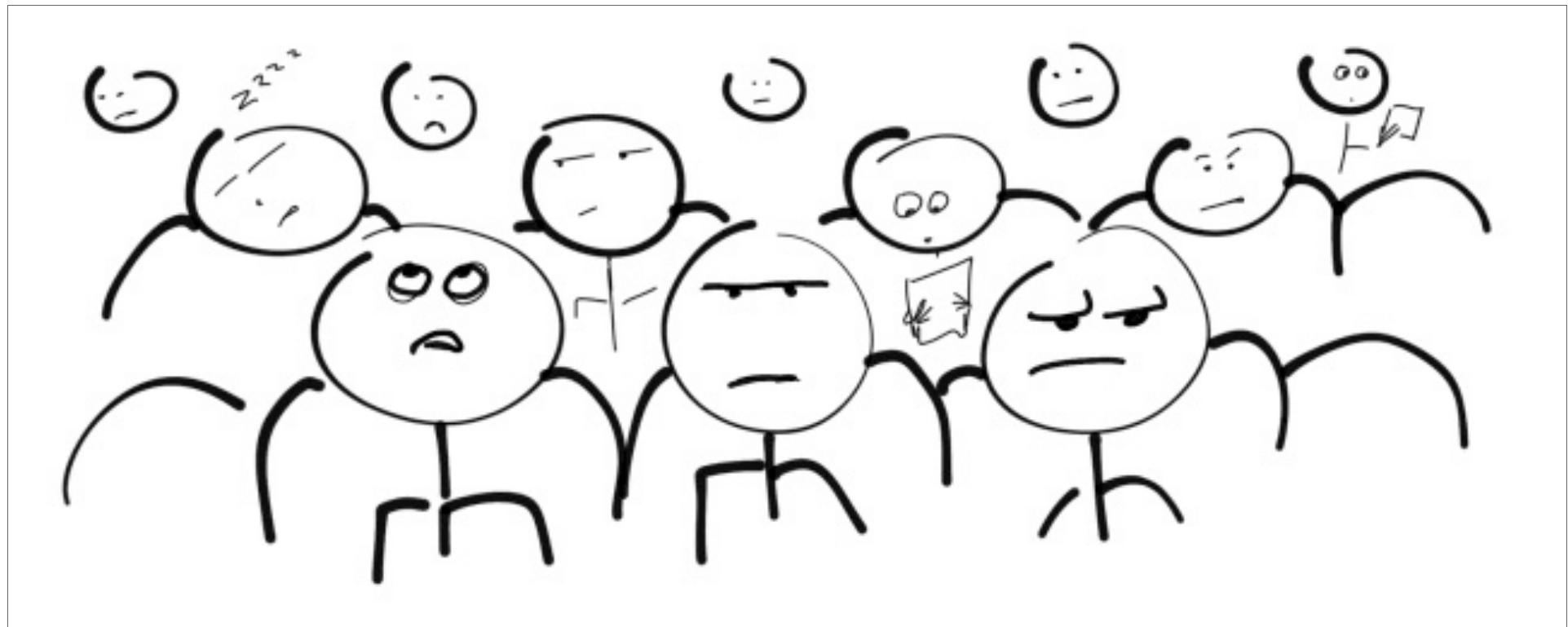
- Google it
- Ask Your fellow students, BiRC PhDs and post docs
- and your supervisor(s) off course

Rule 6: Monitor your own progress together

- Use your supervisor for regular meeting but
- More importantly use yourself and your fellow students. The more you present to each other formally / informally the more you can see clearly where you are going .. and where to go next ..
- Remember the mantra : “Remain Focused on Your Hypothesis While Avoiding Being Held Back (aka Rule 6)

Rule 7: Captivate your audience

- Prove your Scientific Independence !
- Do not worry so much about size (of the report)
- Write for a specific audience (aka the censor...)



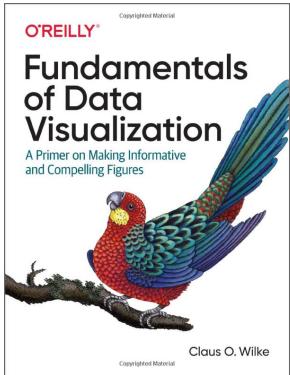
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To reiterate ...

- Explain to someone proficient in bioinformatics but a complete stranger to your topic ...
- Explain the context, the state of the art and “what is missing” (this is were you pitch in with your project topic).

Rule 8: Make nice figures and tables



The key to your bright future in academia / industry:

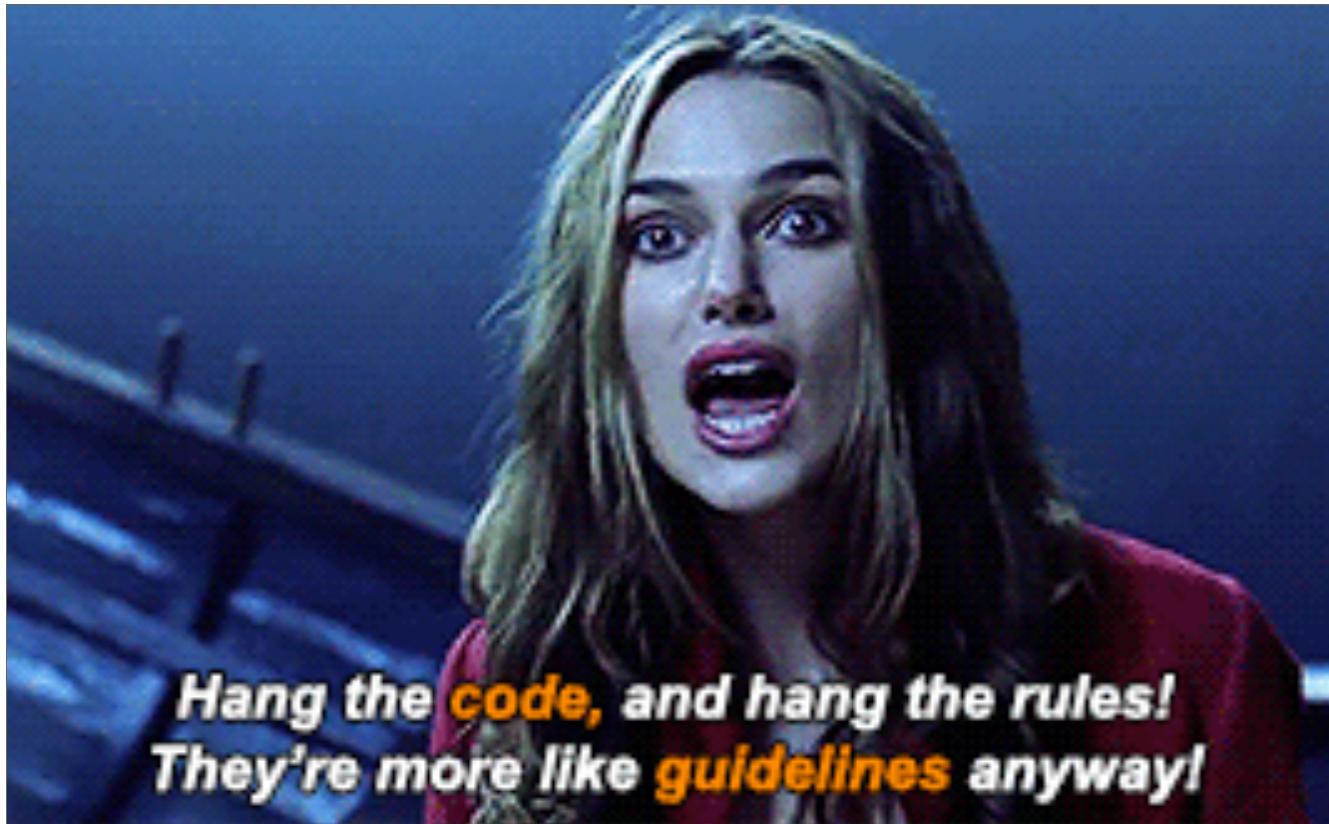
<https://www.science.org/content/blog-post/2021-year-graphics>

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Rule 9. Have fun

Do we need to elaborate :0) ?



*Hang the code, and hang the rules!
They're more like guidelines anyway!*

Rule 10: think ahead ... after the MSc thesis

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