(Meta)data in excel Episode Notebook

Part of FAIR in (bio) practice, <https://carpentries-incubator.github.io/fair-bio-practice>

**Type your name and institution:**

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**What can go wrong with data in Excel**

Have a look at the example excel data-file on the presentation.

**Questions:**

- What do you find confusing?

- What would you try to clarify with the author before doing anything with the file?

- What will be the issues with calculation of: average biomas, biomas per genotype?

- Typically, more advance data analysis is done programmatically, which requires e.g. conversion to a text format as csv, tsv format. Or using a library that reads Excel file and "kind of make this conversion on the fly". Save this file in a text format, close Excel and reopen the saved files. What has changed?

Answers:

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Have you seen similar tables? Do you believe this example is realistic?

**Spotting problems**

Which of these problems (repeated below and numbered) are apparent in the example excel data-file on the presentation in the following places:

(add the numbers to the end of the bullet points)

* Row 5
* Row 2
* Column C
* Column E
* Column L

1. Using multiple tables
2. Using multiple tabs
3. Not filling in zeros
4. Using problematic null values
5. Using formatting to convey information and organizing data
6. Placing comments or units in cells
7. Entering more than one piece of information in a cell
8. Inconsistency in used values
9. Using problematic field names
10. Using special characters in data
11. Values without field labels

**Exercise 3: Outsmarted by Excel**

Open Excel and type the following values into the cells:

A B C D E F

Gene Sept2 Sample 0013 Record 12/5/4

Mar/1 1March Mar-1 1-3 14/3/20 43904

**Questions:**

* Is what you see what typed?
* Can you force the above formatting?
* Do you know which year these dates represent?

**Exercise 4: Data tables and FAIR**

How do the described practices for representing data in tables (Excel, .csv or .tsv) help in achieving FAIR? Which aspects of FAIR do they help with?

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**Feedback**  
  
1.      How do you feel about the presented topics after this session (type

+1 next to the statement that best describes your feeling):

•       I am more confused:

•       I have a better understanding of them now:

•       My knowledge has not changed much:

2.      Thinking of your knowledge of the lesson topic and its presentation,

which one of the statements best characterize your experience (type +1

next to the statement)

•       I am a novice, and I found the course useful/informative:

•       I am a novice, but I think the course should be improved:

•       I have experience in the presented area, but I found the course

useful/informative:

•       I have experience in the presented area, and I think the course could

be improved:

3. How was the pace of the lesson:

•       Too fast:

•       About right:

•       Too slow:

4. If the lesson had to be 5 minutes shorter, what would you remove:

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5. If the lesson could be 5 minutes longer, what would you add or spend

more time on:

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