Mindsets #1

LOOKING AT THE WORLD AS A SOURCE OF DATA
You can use data techniques to understand all sort of phenomena of everyday life, and to find patterns that would be harder to grasp otherwise.

IT'S ABOUT PROBLEM SOLVING
Using data techniques is all about problem solving! Think of puzzles (like sudoku) appearing continuously on your journey. How to collect data about a certain phenomenon? What kind of a hack could lead to solve your next step?

Mindsets #2

ITERATE YOUR HYPOTHESIS/QUESTION
Working with data is an iterative process around having an idea (formulating a hypothesis), checking the idea (testing the hypothesis), revising the idea (modifying the hypothesis).

COMPUTER DO – HUMAN THINK
Working with data happens with computers, but you provide the brainpower. Computers are handy as tools, but in the end you are the one who makes sense of the data.

Working with data 101

What can happen after you open a dataset?

OpenRefine

OpenRefine is more powerful than Excel for many types of data operations.

You can also *split cells into several columns*.

Clean up typos with Cluster and edit.

And *filter, sort, remove duplicates, combine, transpose columns to rows (and vica versa)...*

Text-to-columns for splitting

You might find cells, that have a list of content, such as:

cross-cultural research | eco-design | design methods | household routines | product development | sustainability | user-centered design

Such lists within a cell can be *split into columns* with the "Text to columns" function from earlier. Just set "|" (called "pipe") or another character as a delimiter.

Text to Columns

Basic operations

When you start to make sense of the data, there are a few steps to get familiar with the data.

OVERVIEW: In practice, this starts with looking around, trying to make sense of what is in the dataset.

ZOOM AND FILTER: To zoom in to different aspects, *sorting* can help. When you know what is in and what is out, *filtering* can help in removing the uninteresting parts.
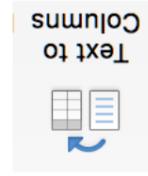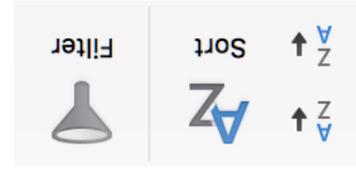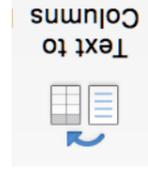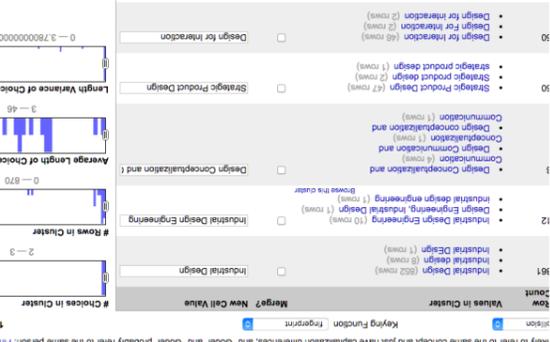
Filter

Sort

How to open a CSV file?

CSV stands for comma-separated values. That means, *commas* are used to separate the different data cells.

An example:
"colour","condition","item","category","diameter (mm)","price per unit (AUD)"
"white","used","ball","golf",43,0.5

In Excel, you need the function "Text to columns" to open a CSV. You can find it in "Data".

Text to Columns

The first row is the header, and the second (and following) are the actual data.