

DA150X

# Seminar 2: Presenting and discussing results

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# Aim of today

- To be (more) confident about the structure and content of Results and Discussion sections
- To read and comment on another team's draft
- Q&A

# Reflection: How is it going?

- Have you started writing the Results and Discussion sections?

# Today's agenda

- Introduction and warm-up (20 mins)
- Swap texts with another team. Read and comment on each other's Results and Discussion (60 mins including break)
- Summary and Q&A

# Presenting tables and figures

Start with a general statement about the results

Consistent terminology. There is detail in the table heading that relates to the text.

## 4 Results

The result section is divided into four parts. The first part describes the resulting baseline datasets after the data collection. The second part describes the results from experiments focusing on the first research question. The third part describes results from experiments focusing on the second research question. Finally, the fourth part describes results on which classifier of the ones tested that performed best overall.

### 4.1 Baseline datasets

The data collection resulted in data from 523,838 unique users. Description of the baseline datasets (Day 1 - Day 10) are presented in Table 4.1. Given our method, the dataset before splitting into train and test sets had 2 % converters. As seen in Table 4.1 the random splitting into train datasets resulted in datasets with approximately 2 % converting users each.

TABLE 4.1: Descriptive statistics of baseline datasets.

Dataset	#Users	#Converters
Day 1	34604	712
Day 2	35040	692
Day 3	34939	704
Day 4	34973	699
Day 5	37753	761
Day 6	37418	743
Day 7	33700	681
Day 8	33231	683
Day 9	34202	678
Day 10	33365	702

Metatext to show organisation. (However, use "Section 4.1" rather than "the first part")

Reference to the method and/or the research question

Reference to the table

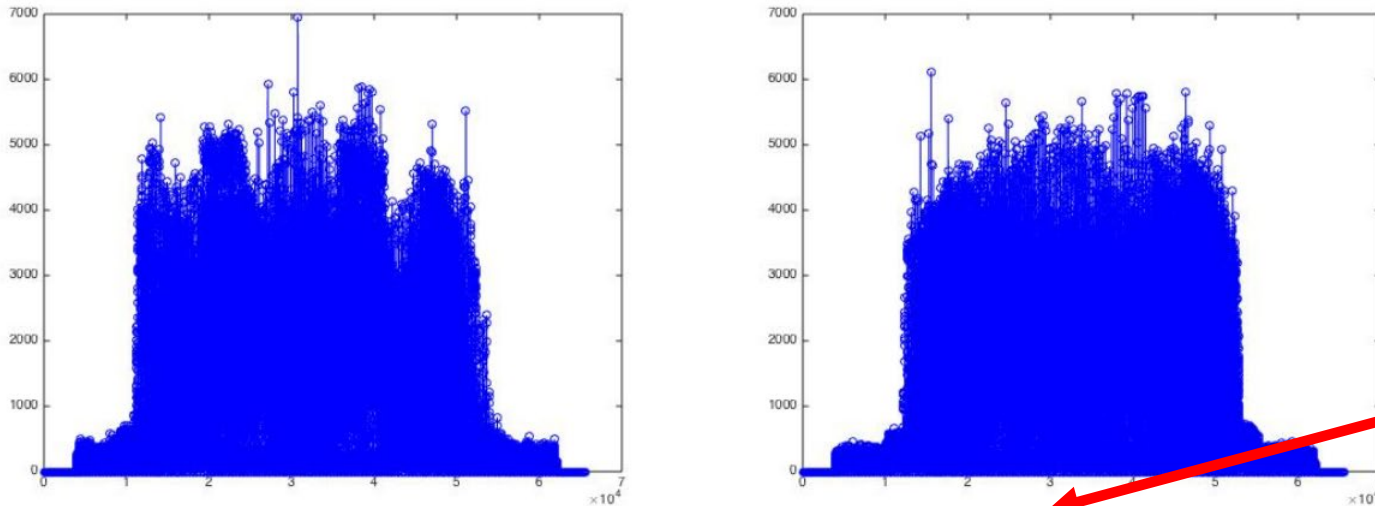
Reference to the method

Figure and text are connected

When inspecting the 1-D signals created by row concatenation of MRI scans, we see a clear distinction between the signals of a healthy brain and those of a brain with Alzheimer's disease (AD). Consistent with the results of Lahmire and Boukadoum (2013), the healthy brain has a more irregular signal with a broader spread of pixel intensity. This can be seen in Figure 4.1, where the pixel intensity of the signal is plotted in MATLAB.

Explain what the figure or table shows

Reference to the figure



Missing: X- and Y-axis labels

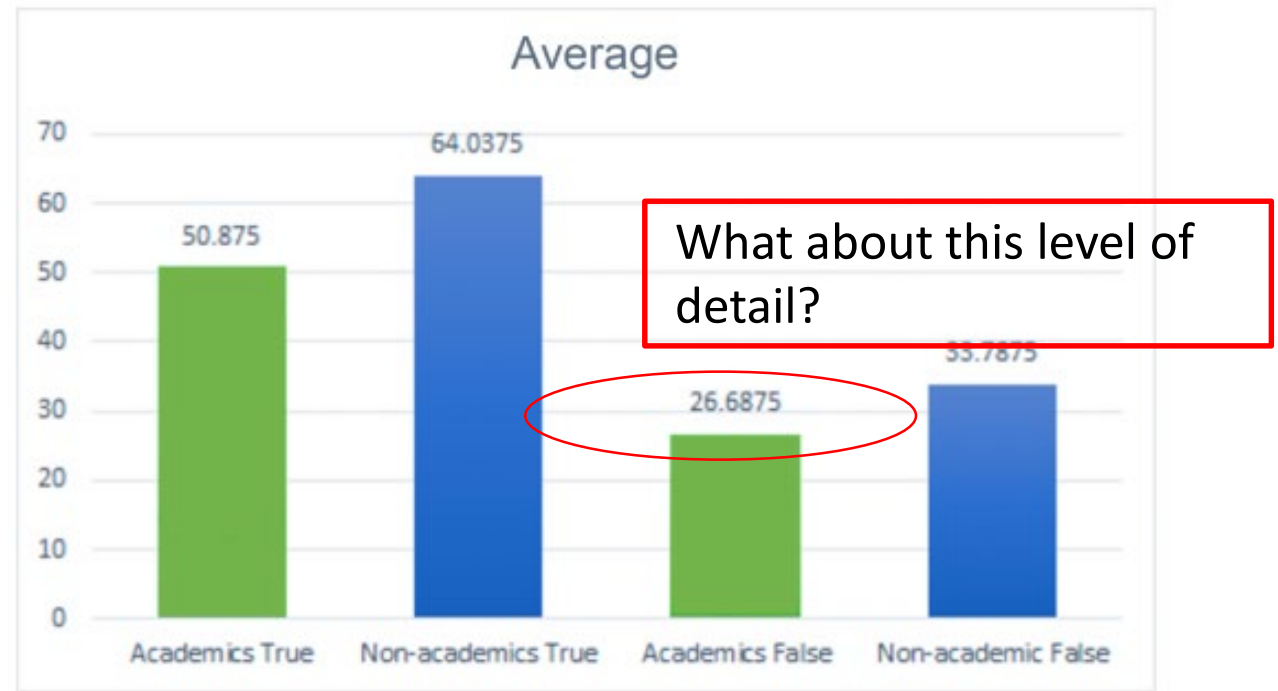
Figure 4.1. MATLAB plots of pixel intensity of MRI 1-D signals from a normal brain (left) and a brain with Alzheimer's disease (right). The MRI scans are taken from the same layer in the brain.

Consistent terminology

# What's missing?

What about this as a first sentence?

Figure 4.3 shows the proportions of academics (green) and non-academics (blue), who perceived the true and false tweets as credible.



**Figure 4.3.** Average percentage over all topics.

Reference to the figure!

On average, approximately 51% of the academic assessors found the true tweets credible, while roughly 64% of the non-academics found the same tweets credible. In comparison, the values for the false tweets were 27% for the academics and 34% for the non-academics. In other words, fewer of the academics judged all tweets as credible than the non-academics, 13% fewer for the true tweets and 7% fewer for the false tweets. Both groups were less convinced by the false tweets, but it is still noteworthy that not more respondents believed in the true tweets.

# Highlight contrasts

- ***Ranges from** 3000 to 5000*
- *...with a peak at 40 **instead of** 20*
- *... **not more than...** /**as much as...***
- *This figure does not reach higher than... / is **only**...*
- *This figure is significantly larger...*



# In sum...

- Do not leave tables and figures “unattended”
- The figure caption is not enough
- Write a *paragraph* about what it is we see
- Interpret the data for the reader in connection with the figure or table – do not wait until the Discussion

- Work on your own text (20 mins)
- Exchange texts with another team and peer review.

# To look at in your own – and others' texts

- Does the section (or subsection) start with a brief background? A reminder of the method? If not – would this help?
- Is the figure explained and interesting information highlighted?
- Is the table or figure *labelled* and *mentioned in the text*?
- Is the table or figure professional-looking and easy to read?
- Does the caption have sufficient detail?
- Is there anything that should be moved to Discussion instead?

# Common “moves” in Discussion sections

(Swales and Feak p. 368)

- Repetition of purpose and methods
- Summarising results
- Commenting on result
  - Making claims
  - Explaining
  - Speculating
  - Comparing to other work...
- Discussing limitations
- Recommendations

# The Discussion section: hedging and generalising

Generalising:

Overall,

In general,

The tests tended to be successful

The tests were successful, with only two exceptions:

Hedging: It seems unlikely that...

This may be due to...

This might have severe effects on...

# Limitations

Therefore the lack of a complete dataset is a limitation that may affect the accuracy of the methods used. Despite this drawback, the comparison between MLPC and BRBM pre-trained 26 MLPC should still be valid, as both are used on the same dataset.

# Limitations

“Therefore the lack of a complete dataset is a limitation that **may** affect the accuracy of the methods used. **Despite this drawback**, the comparison between MLPC and BRBM pre-trained 26 MLPC **should** still be valid, **as** both are used on the same dataset.”

- End on the “carefully positive” note
- Meaning of **should**? Other alternatives?
- Difference between **may** and **might**?

# A note on cross-referencing

- Refer like this: **(Section 2.3)** or **As shown in Section 2.3.**
- Avoid referring to sections with their headings:
  - \*... based on previous research reported in the background
  - \*This will further be dealt with in Discussion
- Referring to studies in the Discussion which have already been mentioned in previous sections (e.g. Theoretical Background):
- Remember a full reference again. Not sufficient to say Erhan et al. (2020) in the Background, but then only "Erhan et al." in the Discussion.



# Ask questions to develop your idea and your arguments

## *Introduction:*

- *Why is this interesting?*
- *To whom is this relevant?*
- *What is the problem?*
- *Who says there's a problem?*
- *What may happen if the problem is not solved?*

## *Method:*

- *Why did we choose this method?*
- *Could we have chosen other methods?*
- *Has anyone else used this method?*

## *Results:*

- *Could a reader interpret my graph in a different way?*
- *What information do the readers need to follow my story?*
- *What do I want to highlight?*

## *Discussion:*

- *How do I know my statement is correct?*
- *Could there be other possible explanations? Why? Why not?*
- *Can I support my statements (or guesses...) with a reference or two?*

# A useful resource: The Manchester Phrasebank

<http://www.phrasebank.manchester.ac.uk/reporting-results/>

## Referring to data in a table or chart

### Highlighting significant data in a table or chart - close

What stands out in the table is ...  
Closer inspection of the table shows ...  
It is apparent from this table that very few ...  
The most interesting aspect of this graph is ...  
In Fig.10 there is a clear trend of decreasing ...  
What is striking about the figures in this table is ...  
What is interesting about the data in this table is that ...  
The differences between X and Y are highlighted in Table 4.  
From the chart, it can be seen that by far the greatest demand is for ...  
From this data, we can see that Study 2 resulted in the lowest value of ...  
This table is quite revealing in several ways. First, unlike the other tables ...  
From the data in Figure 9, it is apparent that the length of time left between ...  
Data from this table can be compared with the data in Table 4.6 which shows ...  
As Table III shows, there is a significant difference ( $t = -2.15$ ,  $p = 0.03$ ) between the two groups.

### Stating a positive result - close

The mean score for X was ...  
Further analysis showed that ...  
Further statistical tests revealed ...  
A two-way ANOVA revealed that ...  
On average, Xs were shown to have ...  
Strong evidence of X was found when ...  
This result is significant at the  $p = 0.05$  level.  
The results, as shown in Table 1, indicate that ...  
A positive correlation was found between X and Y.  
There was a significant positive correlation between ...  
The difference between the X and Y groups was significant.  
There was a significant difference in X,  $t(11) = 2.906$ ,  $p < 0.01$   
There was a significant difference between the two conditions ...  
Respondents who reported low levels of X also reported significantly lower levels of Y.

# Remember these resources

Manchester academic phrasebank:

- <http://phrasebank.manchester.ac.uk>
- The KTH Guide to scientific writing (see for instance the sections on *sentence structure* → *common errors* and *Scientific style*): [www.kth.se/writingguide](http://www.kth.se/writingguide)
- Use a good dictionary to find the exact vocabulary, e.g.:  
<http://Dictionary.cambridge.org>
- Karolinska Institutet's pages on academic writing and referencing:
- <https://kib.ki.se/en/write-cite/academic-writing>
- <https://kib.ki.se/en/write-cite/writing-references-apa-vancouver>