Author’s Toolkit
Writing Better Technical Papers
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In this issue we take up the important matter of space. Here, I don’t mean the final frontier, the great emptiness beyond our planet, or what you may lack on the subway every morning; rather, I mean the humble bit of white space produced in your document by hitting the long middle key at the bottom of your keyboard.

Give Me Some Space

A space in English text is more than nothingness—it is quite meaningful! At the most basic level, we separate and thus identify words by inserting spaces between them. Let’s discuss a few of the most common ways that spacing is misused.

One of the most common errors with spaces involves parentheses:

- \( \times \ldots \text{Burnbaum variable(BV\textsubscript{\textit{r}})} \text{ determines} \ldots \)
- \( \circ \ldots \text{Burnbaum variable(BV\textsubscript{u})} \text{ determines} \ldots \)

Consequently, the rule here is very simple: always insert a space outside of parentheses; never insert a space inside of parentheses.

Another very common problem is not using a space between a value (number) and a measurement unit:

- \( \times \ldots \text{so its memory was increased to 500GB.} \)
- \( \circ \ldots \text{so its memory was increased to 500 GB.} \)

Actually, the first example (with no space) is often used in popular magazines or on the packaging of products like hard drives. However, in technical writing for a journal, you should add the space. A major exception is for temperature values, such as a number followed by degree sign and C for Celsius:

- \( \times \ldots \text{the temperature dropped to } 87^\circ \text{C after...} \)
- \( \circ \ldots \text{the temperature dropped to } 87^\circ \text{C after...} \)

Similarly, the symbol for percent (%) should not have a space in front of it:

- \( \times \ldots 75\% \text{ of the n-gram results showed...} \)
- \( \circ \ldots 75\% \text{ of the n-gram results showed...} \)

Be careful not to insert a space between words, letters or numbers and common punctuation marks like commas, periods and colons:

- \( \times \ldots \text{as before, were divided into three parts:} \)
- \( \circ \ldots \text{as before, were divided into three parts:} \)

An error I often encounter in our clients’ documents is the insertion of two spaces between sentences:

- \( \times \ldots \text{without modification. We then...} \)
- \( \circ \ldots \text{without modification. We then...} \)

Such spacing is an old convention of the typewriter era. Word-processing software like MS Word makes beautiful automatic spacing after periods—using two spaces ruins this.

Limit “Figure-centered” Sentences

A common sentence style in technical writing is what I call “figure-centered sentences”:

- \( \times \ldots \text{Figure 1 shows a schematic outline of our...} \)
- \( \circ \ldots \text{Equation 2 expresses the relationship of...} \)

Such sentences can be useful and are often clear and direct, but if overused they make the text seem repetitive and thus boring. The easiest way to limit such usage is by enclosing the figure number in parentheses:

- \( \times \ldots \text{The correspondence ratios for experiment 2 (Fig. 3) are clearly larger than...} \)
- \( \circ \ldots \text{The correspondence ratios for experiment 2 (Fig. 3) are clearly larger than those for...} \)

In addition to avoiding awkward repetition, the style of the second example uses as the grammatical subject a thing or concept that is more important than a reference to a figure.

Grammar Questions?
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Mini Quiz: What’s Wrong?

1) Our results match to those of Jones et al.
2) Our results match those of Jones et al.
3) Our results show a close match to those...

(Answers: Only 1) is incorrect)