How to Lay Waste to Several Nations in the Middle East

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Abstract

We'll talk about the abstract when we get to how to organize a paper. For now, just bear in mind that 50% of the people who pick up your paper will read the abstract and nothing else. So make it short and sweet.

By the way, that 50% number—I made it up.

1 What is a section?

Now you probably know this, but in a technical paper, you'll want to use the `\section` command to start each section. If, for some reason, you don't want a section to be numbered, then you use the `\section*` command.

What is an unnumbered section?

It's entirely a matter of style whether you write your section names in title case or instead capitalize just the first word and proper nouns. Personally, I prefer the latter. But when writing something with chapters, I use title case for the chapter names, even if the section names are not in title case. (That's what we did in both editions of the book.)

2 What happens to section numbers when a numbered section follows an unnumbered section?

The answer is that unnumbered sections just don't count.

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§Supported by the House Republican Caucus.

Did you happen to notice that the first paragraph of each section is not indented? This paragraph is indented, but it's not the first one in its section.

3 It would look strange to have the first paragraph of a section be indented

You probably had never really noticed this phenomenon before. But if I'm doing my job correctly, you'll never again accept an indented paragraph at the beginning of a section.

I should not have had to use a `\hspace{\parindent}` command above. On page 171, Lamport describes a `\indent` command that should have worked.

4 Superfluous section

Yet, the `\indent` command does not work.

4.1 You can make a subsection

Notice that the first paragraph of a subsection is not indented.

4.1.1 You can make a subsubsection

Ditto for subsubsections.

Then you get into sections called paragraphs Look Ma, the heading runs into the text!

Paragraphs are unnumbered.

The end of the line, sectioning-wise And now, even the section name is indented!

Subparagraphs are also unnumbered.

4.2 Should you use subsections and subsubsections?

To quote our President, "When I was young and foolish, I was young and foolish." In my case, that included a belief that I should use subsections, subsubsections, subsubsubsections, ad infinitum. The numbering system would give the reader a sense of location in the logical structure of the document. (Notice how deftly I avoided having to use gender in the previous sentence.)

But at the feet of the Master, Leiserson, I learned otherwise. Like a horn player in a mariachi band, flatter is better. It is best to avoid going below sections in a technical paper. It is better to have Sections 1–10 than Sections 1, 1.1, 1.2, 1.3, 2, 2.1, 2.2, 3, 4, 4.1, and 4.2. Just make sure that the reader can infer the location in the logical structure from the text.

A paradox

Yet, I am in love with unnumbered subsubsections! They may not beat the feeling of cutting a dado in a piece of hardwood, but they're close. I use them so often that I include the above macro in my thcmac2e.tex file.

What's so great about subheadings? They serve two purposes:

1. They break up the page so that it is not a solid block of text. My first editor at McGraw-Hill used to talk about "the Hebrew prayer book" look, in which a page has nothing but uninterrupted text. It is intimidating and makes it difficult to keep one's place on the page.
2. They provide guideposts for the reader. In a sense, they are like very short topic paragraphs. *But* subheadings do not replace topic paragraphs! Write the text as if the subheadings were not there.

5 Should section names have $\Omega(1)$ math in them?

What is wrong with this section name? The math expression looks wimpy.

6 That's why you use the \boldmath command when there's $\boldsymbol{\Omega(1)}$ math

Except that I still haven't figured out how to get the backslash in bold in the section name. I would have liked to have written "…use the `\verb'\boldmath'` command …" in the section name. But I cannot. The `\verb` command is not allowed to appear in the argument to any macro. So then I tried putting `\boldmath` before the `$\backslash$` in the section name. It compiled, but dvips choked, giving me the error, "mtsyb.pfb: No such file or directory," indicating that it doesn't have a bold version of the backslash symbol. So I just went with a nonbold version of it.

Life can be like that.

7 Type styles

Section 3.1 of Lamport goes over the commands to get upright, italic, slanted, small caps, medium, boldface, roman, sans serif, and typewriter styles. You can mix these commands together, within reason. So if you want bold italic, ***you can get it***. You can get SMALL CAPS SANS SERIF. You can even get ***`slanted boldface typewriter`***.

Heed Lamport's advice about not using these commands in your text. If you have reason to change the font, then there's probably some meaning behind the font change. Make yourself a macro. For example, if you want definitions to appear in bold italic (as in CLRS), define the macro

```
\newcommand{\defn}[1]{\textbf{\textit{#1}}}
```

So now you can have text like this:

> A ***goal*** occurs when the puck entirely crosses the goal line between the goalposts.

8 Accents

Lamport pretty much says it all on page 38. If what you're putting the accent over is just one letter, as it usually is, then you can omit the curly braces around the letter. In other words, está is the same as está.