

Scholarship Skills, Week 5: Stle

Scholarship Skills

Style

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Personal Pronoun: I or We?

- “I” is not used much in technical writing, though it’s not unheard of
- “We” is okay for a single author as long as it means you’re taking the reader by the hand and leading them along:

We next come to the case where n is prime.
or if you’re describing what you did with collaborators
We then tried reducing the number of queues.

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Personal Pronouns (continued)

- Pick a personal pronoun and use it. Avoiding personal pronouns can lead to lots of sentences in passive voice.
- Dupré (Segment 2) says:
 - call yourself /if you are the only author, or *we* if you have coauthors.
 - call the reader *you*;
 - call the team comprising you and your reader *we*.

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Tense

Try to use the present tense as much as possible. Reserve past tense for referring to previous parts of the text, or specific activities that occurred in the past.

We surveyed 24 software engineers
on their use of testing harnesses.

A theorem stays true over time.

Recall that in Chapter 2 we proved
that every integer had a unique
prime factorization.

Look again if you find yourself changing tense
in the middle of a paragraph.

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Subjunctive, Idioms

Avoid the use of “would” if you actually did something.

Doubling the cache size ~~would~~^s result in a third as many cache misses.

Be careful with idioms—will all your readers know them or be able to infer them from the context?

The language LIKON is just a strawman.

There are two kinds of refactoring: floss refactoring and root canal refactoring.

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Clarity

Don't intentionally try to baffle the reader.

A reader (or listener) is most impressed when he or she learns something without a big struggle.

Make sure material stands by itself

Don't rely on section headings

Section 3.2 Simulated Annealing

This randomized method ...

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Extra Information Can Confuse

[Core Rule: *Be concise.*]

Don't say "A or B" if $A = B$

If duplicates are allowed, the algorithm
will be $O(n^2)$, ~~that is~~ quadratic.

Don't repeat information immediately

This class of applications requires
multimodal interfaces with interactive
response. ~~These multimodal interfaces
with interactive response~~ can reduce ...

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Ambiguity

[Core Rule: *Be clear.*]

Can your text be misread, or could it
require backtracking?

The interface points to the database
schema provide ...

(^{NP}Get requests)^V ^{NP}read locks to check ...

Singular form in descriptions can eliminate
some ambiguity.

~~The~~ ^A databases ~~have~~ ^S table definitions and
constraints.

~~A database~~ ^{A database} has a table definition and a constraint.
The -ing form of a verb — does it modify a
verb phrase or a noun?

Kim [6] transformed nested queries into
flat queries using join.

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Terminology

If you appropriate a term for a new concept, make sure it won't conflict with the common usage and that it has the right connotation.

We will call an algorithm *big* if its space complexity is quadratic or greater.

We will call a time series with sudden changes in direction *goofy*.

In creating and explaining terms, figure out what they are the “unit of”.

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Help for the Reader [Core Rule: *Be simple*]

- Break up long noun phrases (beware of 5 words or more)

This value is compared to the latency
feedback policy packet rate adjustment
range limit.

- Give names to specific objects.

The root node is guaranteed to have a left
child and a right child. ...

The right child of the root must have a
larger value ...

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More Help for the Reader

Don't assume that programming language code is self-describing.

Understanding may hinge on style or naming conventions that the reader doesn't know.

```
(IMPLIES (NOT (LISTP A))  
  (EQUAL (APPEND (APPEND A B) C))  
  (APPEND A (APPEND B C))))
```

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Brevity

[Core Rule: *Be concise.*]

Wordiness hampers understanding.

Learn to filter out “filler words” from your writing.

Try to remove words that are not specific to the domain of discourse.

This change would create a situation where a query could give two answers.

The purpose of this attempt is to be able to measure the effect of double buffering.

The user needs an understanding of the underlying ...

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Brevity 2

Seek words that advance the sentence. Do your words add new information?

We investigate the process of data flow analysis.

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You Try It!

During the course of this investigation ...

In order to explore the ramifications of ...

Two potential problems that can occur when trying to combine a hash table with a B-tree ...

This observation provides an explanation of the difference ...

We added a module for the management of exceptions ...

An explanation facility that would provide users with help in selecting the appropriate ...

We conducted interviews with four groups ...

In the face of this exciting opportunity, however, there are several changes that need to be made to existing query engines to make them applicable for the task of querying the Internet.

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Try these!

Two approaches have been used to address the issue of correctness of parallel prefix computation algorithms.

“Sustainability” is a widely used term whose meaning remains elusive. Nevertheless, a wide variety of organizational strategies and policy tools/techniques are now being pursued by governments, NGOs and businesses in support of efforts to accomplish sustainable development.

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Repetition

Okay when used to clarify, or to keep sentences or clauses *parallel*.

The search process proceeds from parent to child. Each child is visited after its parent.

Hinze [2004] originally solved this problem by... Subsequently, Sheeran [2007] solved the problem by...

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