HS7-416: Technical Writing

Grammar and Style

Lecture 4

Previous lecture's remarks

- Commas
  - "the four processes that use the network are almost never idle"
  - "the four processes, which use the network, are almost never idle"
  - Be careful about whether a phrase is a *qualifier*, or *parenthetical remark*

What's a good English

- Correct grammar
  - Mostly rules
- "Good" style
  - subjective
- Avoid particular word combinations

Subject, Object, Pronoun

- Right or wrong:
  - David and I will deal with queries
  - David and me will deal with queries
  - The boss has nominated David and I to deal with queries
  - The boss has nominated David and me to deal with queries
  - Leave all queries to David and I
  - Leave all queries to David and me
  - The engineers responsible for answering queries are David and I
  - The engineers responsible for answering queries are David and me

Pronouns

- Sentence structure: subject-verb-object
- In subject/object:
  - *I* hit Jim
  - Jim hit *me*
- After proposition:
  - Jim gave the book to *me*
- In the complement: (verb to be)
  - It is *I*. (“It is *me”* is wrong)

So the answer is:

- David and *I* will deal with queries (subject)
- The boss has nominated David and *me* to deal with queries (object)
- Leave all queries to David and *me* (after preposition)
- The engineers responsible for answering queries are David and I (complement)

Singular and plural with verbs

- One of the many rules of the English language *have* been broken (right/wrong?)
- in-process inspection and testing now *involves* more attention to the documented quality plan (right/wrong?)
- the conduct of in-process inspection and testing now *involves* more attention to the documented quality plan (right/wrong?)
- Lady Windermere, accompanied by her husband, *is* going to visit the plant next week (right/wrong?)
- Lord and Lady Windermere *are* going to visit the plant (right/wrong?)

The answer is:

- One of the many rules of the English language *have* been broken: **wrong** should be *has* (subject is *one*)
- in-process inspection and testing now *involves* more attention to the documented quality plan: **wrong** should be *involve* (subject is plural)
- the conduct of in-process inspection and testing now *involves* more attention to the documented quality plan: **right** (subject is *the conduct*)
- Lady Windermere, accompanied by her husband, *is* going to visit the plant next week: **right** (subject is *Lady Windermere*)

- Lord and Lady Windermere *are* going to visit the plant: **right** (subject is *Lord and Lady Windermere*, which is plural)

Style

- Always be precise:
  - CPI is the *average* number of cycles to execute one instruction
  - (over qualify!) The results show that, for the given data, less memory is likely to be required by the new structure, depending on the magnitude of the numbers to be stored and the access pattern.
  - The results show that less memory was required by the new structure. Whether this result holds for other data sets will depend on the magnitude of the numbers and the access pattern,

but we expect that the new structure will usually require less memory than the old.
- (Science fiction!) As each value is passed to the server, the "heart" of the system, it is checked to see whether it is in the appropriate range.
- Each value passed to the central server is checked to see whether it is in the appropriate range.
- (vague) The analysis derives *information* about programs.
- The analysis estimates the resource costs of programs.

- Keep it brief:
  - fewer *in number*
  - an *approximate* estimate
  - each *and every* person
  - "*The volume of information has been rapidly increasing in the past few decades. While computer technology has played as significant role in encouraging the information growth, the latter has also had a great impact on the evolution of computer technology in processing data throughout the years. Historically,*

many different kinds of databases have been developed to handle information, including the early hierarchical and network models, the relational model, as well as the latest object-oriented and deductive databases. However, no matter how much these databases have improved, they still have deficiencies. Much information is *in* textual *format*. This unstructured *style* of data, *in contrast to the old structured record format data,* cannot be managed properly by *the* traditional database models. Further more, *since so much information is available,* storage and

indexing are not the only problems. We need to ensure that relevant information can be obtained up querying *the database.*

- (Too brief) Bit-stream interpretation requires external description of stored structures. Stored descriptions are encoded, not external.
- (Better) Interpretation of bit-streams requires external information such as descriptions of stored structures. Such descriptions are themselves data, and if stored with the bit-stream become part of it so that further external information is required.

•Keep it simple:

- The software contains global input default parameter values to facilitate initial model building (too many adjectives)
- (don't be ambiguous!) Experiments, with the improved version of algorithm as we have described, are the step that confirms our speculation that performance would improve. The previous version of the algorithm is rather slow on our test data and improvements lead to better performance.

- (Obscure) The status of the system is such that a number of components are now able to be operated
- Several of the system's components are working
- (Obscure) In respect to the relative costs, the features of memory mean that with regards to systems today disk has greater associated expense for the elapsed time requirements of tasks involving access to stored data.
- Memory can be accessed more quickly than disk.
- The compiler did not accept the program because it contained errors. (it?)

- The program did not compiler because it contained errors.
- In addition to the skiplists we have also tried trees. They are superior because they are slow in some circumstances but have lower asymptotic cost. (they)
- In addition to the skiplists we have also tried trees. Skiplists are superior, although slow in some circumstances, they have lover asymptotic cost.
- In the first stage, the backtracking tokenizer with a two-element retry buffer, errors, including illegal adjacencies as well as

unrecognized tokens, are stored on an error stack for collation into complete report.
- The first stage is the backtracking tokenizer with a two-element retry buffer. In this stage possible errors include illegal adjacencies as well as unrecognized tokens; when detected, errors are stored on a stack for collation into complete report.

Style

- Be yourself
- Make sure it sounds right
- Be careful with make-up words:

  If, on your course, you have to study a fixed number of standard-sized **modules** (noun), then your course is **modular** (adjective). To make a course modular, some one must **modularise** it (verb). When that process is finished the course might be described as recently **modularised** (adjective). The

process is **modularisation** (noun). Five years later the institution will question the benefits of **modularity** (noun: the condition, rather than the process of change).
  - Modularisble does not exist!
- Metaphors and Clichés
  - supplies of blood are drying up this summer
  - new water supply project are in the pipeline
  - “at the end of the day”, “take on board”, “moving the goal posts”

- Jargon:
  - Be careful when communicating with non-engineers
  - The transaction log is a record of changes to the database (not a database record!).
  - The transaction log is a history of changes to the database.
  - The author describes an array of algorithms for list processing.
  - The author describes several algorithms for list processing.
- Direct statements
  - The following theorem can now be proved.

  - We can now prove the following theorem
  - (but be careful) When we conducted the experiment it showed that our conjecture was correct.
  - The experiment showed that our conjecture was correct.

Word-problems

- Split infinitive: to *boldly* go, to *quickly* walk (sounds ugly)
- He or she:
  - anyone who cares about the way **he** speaks
  - anyone who cares about the way **he or she** speaks
  - An engineer must have confidence in **his or her** decisions
  - An engineer must have confidence in his or her decisions. He or she may have to defend his or her decisions to the public, to his

    or her employer or his or her client. These are the responsibilities that he or she...
  - Engineers must have confidence in their decisions (put in plural)
- I, we: The author (third person)
- Data: datum is singular
  - The data have been analysed (wrong)
  - datum is fixed reference, data here is information
  - The data *has* been analysed (right)

- Informality:
  - Contractions like *don't* and *can't* are informal
  - Avoid colloquial expressions as in "the experiment was a total disaster", "there is no way that..."

Summary

- Grammar
  - Pronouns, singular and plural with verbs
- Style
  - Be clear!
- Some word-problems
  - Split infinitive, he or she, I we, Data, Informality

To do!

- How is the vocabulary exercise?! Another exercise, re-write a 1000 word passage over a week (say 5 revisions). Edit for clarity, flow, expression, and so on.