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Check Your Lists for Logical Structure

Lists may not emerge from your brain fully formed

By Kenneth F. Oettle

Lists are a staple of legal writing. You list elements of a cause of action or a legal test. You list controlling precedents, supportive reasons and dispositive facts. Lists can be powerful.

But lists can also be numbing and ultimately useless if they make the reader work too hard. After you create a list, check it for manageable length and make sure the items are appropriately ordered and grouped.

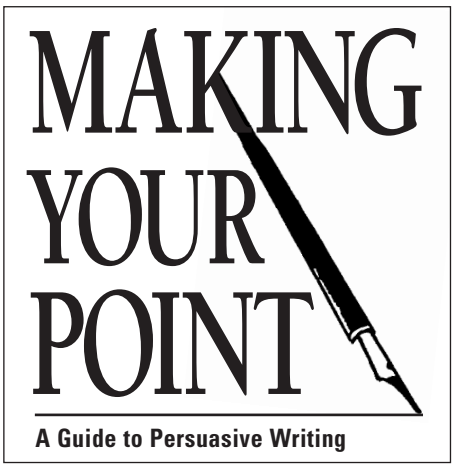
Consider the following list from an article on electronic discovery:

> To comprehend the company's computer system fully, counsel must have a basic knowledge of the hardware and peripherals the company uses, such as terminals, printers, modems, and data storage devices, as well as the software and the type of network, operating system, back-up procedures and protocols that the company employs.

The sentence is more difficult than it needs to be because the grouping is imprecise. Some readers may reject rather than absorb the information, especially if they are unfamiliar with computers or impatient with detail.

The first set of items in the list — hardware and peripherals — is potentially confusing because peripherals are a kind of hardware. Normally, the "and" between two nouns indicates coordinate sets (e.g., "dogs and cats"), not one set that fits within another (e.g., "dogs and Dobermans").

The writer probably intended "hardware" to refer to the computer box and its microprocessor, memory chips and data paths, as distinguished from the software that runs the computer. But some readers might not view it this way, partly because the category "hardware" includes peripherals and partly because the proffered examples of hardware and peripherals give weak support to this limited meaning of hardware.



All but one of the examples are peripherals (printers, modems and data storage devices). The one nonperipheral item — terminals — is at the periphery, as it were, rather than the core of the computer.

A "terminal," in computer lingo, is an "end-use device," usually accompanied by a monitor and keyboard, that relies on another computer for its intelligence.[1] It is not the best representative of a category intended to include computing devices rather than peripherals.

You can improve the presentation of hardware and peripherals by clarifying the dichotomy between core computing hardware, such as processors and memory chips, and peripherals:

> To comprehend the company's computer system fully, counsel should have a basic knowledge of the core computing hardware, including microprocessors and memory chips, and the peripherals, such as printers, modems and data storage devices.

I would then begin a new sentence. Otherwise, the reader will have to digest too much at once. This obviates the need for a connector such as the phrase "as well as," which joined the principal segments of the original sentence. That phrase often signals that something isn't well organized.

Lawyers frequently use "as well as" when they mean, "I have something to add here, and I don't feel like figuring out how it should be grouped or subordinated, or I'd rather not know, so I'll just say 'as well as' and toss it into the mix." In more cases than not (test it for yourself), the phrase marks a failure to group or subordinate.

A flaw in the treatment of software in the original sentence is the presentation of "software" and "operating system" as coordinate sets even though an operating system is a kind

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of software. It's the same mistake as before — mixing sets and subsets.

Software is divided into two broad categories: operating systems, which manage other software, and application software, which performs a specific function, such as processing words. Operating systems include Microsoft Windows, Linux, Mac OS X and DOS. Application software includes word processing, spreadsheet and database management programs.

Perhaps the writer of the original sentence was thinking "application software" but wrote "software." A computer savvy reader may deduce that meaning of software by working backwards from operating system, but the writer doesn't make it easy, separating "software" from its putative sister set "operating system" by a five-word phrase ("and the type of network").

The problem can be corrected by adding "application" to qualify software, by presenting operating system before application software, and by using examples of each. To give the list balance and greater substance, you should also provide examples of networks.

A two-sentence revision of the original sentence might look like this:

> To comprehend the company computer system fully, counsel must have a basic knowledge of the core computing hardware, including microprocessors and memory chips, and the peripherals, such as printers, modems and data storage devices. Counsel should also understand the type of network — client/server (centralized processing) or peer-to-peer (processing at independent stations); the operating system, such as Windows, Mac OS X or DOS; the application software, such as word processing and spreadsheet programs; and the back-up procedures and protocols.

The categories in the second sentence now move from broad view to narrow, from system-wide structure (network) to managing software (operating system) to task-oriented tools (application software). Readers are generally comfortable focusing from the outside in.

As categories expand and contract, the mind has to expand and contract with them, from large to small and back again. Each shift takes energy. Consider how fast you wear out the battery in your video camera as you move the lens in and out to change magnification. You can exhaust a reader in similar fashion, moving the lens in and out as you shift unpredictably from large category to small, from set to subset and back again.

A good list can win a case for you; a bad one can lose the reader. Don't deem your list done with the enumeration. Pay attention to the shaping as well.

Puzzler

Which do you prefer and why — A, B or C?

A. The regulators found that the firm had inadequate procedures for retaining and making accessible e-mails.

B. The regulators found that the firm had inadequate procedures for retaining e-mails and making them accessible.

C. The regulators found that the firm had inadequate procedures for retaining and making e-mails accessible.

You may think that for efficiency, you should group the objects of the word "for" (retaining and making) as close to that word as possible, as in Version A.

That is a good rule of thumb, but it is superseded here by the need for clarity. The reader is likely to see "making accessible e-mails" as a unit, which is counter-productive because you aren't referring to accessible e-mails, whatever that means. You are referring to making e-mails accessible.

The third option does not work because the reader will tie both retaining and making to "e-mails accessible," which is almost nonsensical. ■

Footnote

[1] This definition of "terminal" is taken from http://whatis.techtarget.com.