Post-Justification Editing

It is no real big secret that quite a bit of today's desktop publishing looks just plain awful. A case can be made that quality typography has gotten set further back in the last five years than it has advanced in the previous five hundred. Yet this need not be.

I'd like to share with you several simple methods that I personally use to create outstanding text justification and page layouts. These are all based upon working within the strengths and limitations of today's laser printers, rather than slavishly obeying some hide-bound rules that simply no longer apply. And probably never did.

I like to collectively call all of these tools and techniques *post-justification editing*.

While post-justification editing works best when using the *PostScript* language with my new *Gonzo* justification tools, you'll find many of these layout tricks usable by just about anybody anywhere.

The real biggie is to always…

Typeset FIRST and edit LAST

Once long ago, typesetting was quite expensive and got done late in the words-to-paper process. The sacrosanct rule was "no changes!" Today, *typesetting is free*. Especially when using PostScript. Thus, *there's no point in ever writing anything anywhere without typesetting it first.* Always create your original words with a specific layout, a specific style, and a very specific space goal clearly in mind.

The closer the original author can come to creating and presenting the final image their ultimate reader will view, the tighter the communications, and the more effective the delivered message. Chances are good the author knows his reader better than anyone else. The closer your fit to final, the easier the editor's job.

Match form AND content

The medium *is* the message. It is not just the words. It is how the words are arranged on the page. Paragraph blocks should be just that. Dense blocks of uniform color. Blur your eyes and they should turn a solid gray. With nothing jarring in the way of spacey lines or rivers of white running down through them. No widows. No orphans. Everything visually and aesthetically pleasing.

Precise English is *far* less important than getting all your words to look good sitting beside each other on the page. In general, *cleanly arranged text that is somewhat wordy and slightly jarring will be enjoyed better and remembered longer than will sloppily arranged "perfect" text.*

So, unless you are working on some biblical quotation, priceless poetry, or strict legaleese, be willing to adjust and rearrange *all* of your words to create *both* a medium *and* a message that effectively communicate.

Also be willing to lengthen or shorten to fit the available space. With practice, text rearrangement for best on-page aesthetics can become utterly transparent. Without major changes in intent, content, or meaning.

Fill justify with care

No matter how careful you are, a fill justified text will *always* end up at least slightly less legible than text tightly set left. Improperly done, fill justification could lead to Halloween pumpkin tooth effects, rivers of white running haphazardly through all your columns, and weak to poor paragraph color in general.

So, a good rule is to *avoid fill justification* except for those places where it clearly offers some layout advantage. And then, *if you must fill justify, be willing to spend enough time and effort to do the job right.*

Fill justification can *never* be properly done in a single pass. It should take you several trips to get your task done. Preferably by two or more people. If you are not willing to do this, don't even think of fill justifying.

Be sure to use an absolute minimum column width of 40 characters per line, avoiding excessively "fat" fonts. Or else choose some slightly compressed font variations.

The better justification algorithms will usually slightly spread the characters while strongly spreading spaces. Your "best" ratio of space to character spreading changes with your linewidths and font choices. But I prefer something around 6:1 for fairly narrow columns, ranging up to 12:1 or even higher for book width text.

Hyphenation is your obvious first tool in minimizing "spacey" lines. Don't forget that you can also hyphenate at a second or a third break in any word as well as the first. I personally try to avoid hyphens to make it easier on any future editing or rework. While a lot of very challenging fun, hyphen avoidance does take monumental effort.

Hyphen-free text searches easier as well.

A second obvious tool to minimize spacey fill justified lines uses rewording. Add or eliminate contractions. "I'll" obviously takes up less room than "I will". Select "alike but different somehow" words of differing lengths. Such as "some", "a few", or "several". Or "their" instead of "the". To tighten a line, add words which nobody notices anyway, such as "a", "an", "the", "all", "now", or "do".

"That" and "which" can usually be interchanged, unless you are a fanatical purist. Speaking of purists, take anyone who says "data are" and stake them to the nearest anthill. Data *is*. Data *was*. And data *always will be*.

In a long series of phrases, simply rearranging them can very much improve the justification. Always try to avoid any and all changes in meaning, intent, or context.

If you have a tight line with a very short word at its end followed by a line that is too spacey, just add a space or two in front of the short word to "bump" it down to the next line. But save bumping for emergencies.

Another aid to tightly justified text is to avoid any last lines that are less than *one fifth* or more than *four fifths* of the linewidth. Usually this could get done by rearranging, adding, or dropping one or more words.

Finally, if the sentence just won't set, shuffle it and start over. Or inside the sentence out. Or use a partial phrase. Or start a new paragraph. Or eliminate it entirely.

Pick good power tools

At 300 DPI, you need all the help you can get. So, I do prefer to apply very sophisticated text justification tools. Drop caps and hanging punctuation are an absolute must. So are drop centered headings. Select a slightly smaller font for repeated (123) numerals or for (ALL CAPS) strings. A vertical half space can end up handy for visual separation at paragraph breaks, and a horizontal French space (or a space-and-a-half) looks good at sentence ends.

For very small text, apply *pixel locking* to guarantee a minimum of one full pixel between adjacent characters. With a good locking proc, you can legibly set type as small as three points at 300 DPI.

Several useful pixel locking routines can be found in my *LaserWriter Secrets*.

A kerning feature is needed, especially when using slanty letters such as in AWARD. While you can get fancy kern pair tables, often all you'll really need is the ability to selectively throw in a +1 or -1 point of positive or negative white space. Kerning becomes even more important on headers and other larger messages.

For normal text, I prefer to use a small positive *global* kerning (say 0.2 points) between characters to prevent any low resolution text collisions. This dramatically improves your overall legibility.

When fill justifying, I'll also use a modest *negative* space kerning. This gives you the option of *compressing* as well as extending all of your fill justified lines. But a little bit of compression goes a long way, so use caution.

It is also quite important to *slightly* stretch out your last paragraph line of any fill justified text, so that it appears to be about as spacey as the previous lines. Otherwise, your last line will be noticably "darker".

Playing with fonts

Note that PostScript gives you two ways to select a font size. You can just say "gimmie 10 points" Or you can use the [10 0 0 10 0 0] *matrix* method. If you use the [a b c d e f] matrix method, *a* is your *width*, *b* is your *climb*, *c* is your *lean*, *d* is your *height*, *e* is your rarely used *xshift* and *f* is your super versatile *yshift*. Changing *yshift* is particularly useful for drop caps, superscripts, subscripts, and drop centered titles. Except for the most blah of routine text,

you should *always* use the matrix method to pick fonts.

Note that text *height* cannot change in less than pixel increments, but that text *width* averages out over several characters. Thus, at 300 DPI, it is *physically impossible* to show a character that is precisely ten points high. You can show one that is 41 pixels or 9.84 points high. Or you can create one that is 42 pixels or 10.08 points high.

You just might want to experiment making your text lines a pixel higher or lower than normal. It is amazing the difference in legibility that can result.

Sometimes you might want to imitate a few words in a font that just isn't bold enough. Or need a weight that is "halfway" between two you have. One sneaky stunt that works particularly well with the *Zapf Chancery* calligraphy is called *bolderizing* or *double-whapping*. You simply print your message, and then repeat it once again one pixel to the right. Or two or three times.

But a little of this goes a long way.

Another obvious parameter you can control is your *ledding*, or the extra vertical spacing added between lines. Generally, you'll want an extra point or two of ledding for normal text (space any 10 point text 11 points apart), and considerably more for larger messages. Careful control of ledding can make an enormous difference in legibility.

Finally, do not forget the really obvious big resolution improver: When doing camera ready copy for traditional printing, simply work 133% or 200% oversize and then photoreduce when making your production plates. The quality improvement of a photoreduction is enormous. Just be certain to view your results "at scale" to make sure all your line widths and font weights are acceptable.

Edit down, not up

Always try to make your first cut *one sixth* longer than the available space. In the process of cleaning up all your justification, dealing with any widows and orphans, and otherwise improving things, your text will shorten up to a precise and exact fit.

Besides, you should *always* act as your own worst critic. Initial text is almost always too wordy and is never tightly enough focused. If there is ever any doubt between "adding a little" and "removing a lot" to get a good page fit, editing down is usually your best bet.

The phrase bomb

I try to have two separate proofreaders go over my work. Obviously, there are some errors that you just cannot see by yourself. A different and fresh viewpoint is often needed to make sure you are communicating.

I personally don't care very much for computer based spelling or grammar checkers. Beyond, of course, good old *20,000 Words* in hardcopy. They are flat out not my style. Besides, I thoroughly enjoy fracturing the English language and seeing how many new words and phrases I can invent.

Whoodathunkit?

But I often find myself reusing the same words over and over again. And that's bad. For any text, most readers will have some "expected occurence frequency" for any given word or phrase. If you reuse an oddball word too often, your writing will suffer badly.

Sometimes it can't be helped. Ferinstance, how many reasonable synonyms are available for *available*? But other

times, word reuse is just a bad habit.

One that needs ruthlessly stomped out.

So, I created a new PostScript routine which analyizes a document. Then sorts out all the words and counts the frequency of your word usage. For brevity, you can throw in filters such as "gimmie all my words longer than five characters that I have used more than seven times." All of your offending words will leap out at you.

Let me know if you want to see more on PostScript writing analysis tools.

I guess the real point here is to try and find out what your *own* personal bad writing habits are. And then try to come up with some corrective tools and crutches that are useful workarounds. As always, I've found PostScript used as a general purpose computer language to be a superb help in solving custom problems.

A Last Pass BY HAND

Always do make one or more final *post*-post-justification editing passes by hand *working directly from your printed page.* When you use a "canned" layout program and screen images, your chances are that one line in six could get optimized, that one line in twenty definitely will need lots of attention, and that one one line in a hundred will be an outright disaster that cries for repair.

Your final on-page manual pass is your key secret for outstanding typography. As before, your primary tools are hyphenation, rewording, word substitution, changing word sequences, space forcing, and selective kerning.

If possible, do your manual final pass at a different time or have a different person do it. It's super important to have all the words freshly appear in your mind, and not be an ignored part of a mid-morning blur.

I've got lots of great new downloadable examples of post-justification editing at *www.tinaja.com/acrob01.html* or *http://www.tinaja.com/post01.html* web pages. Along with shareware versions of all my gonzo justification tools that can run on *any* personal computer using nothing but your favorite word processor or editor. And still give you *total* editibility and absolute control on the final page.

All it takes is some extra time and care.

A Contest

But why don't you tell me instead? For this month's contest, just tell me about any little known insider trick to superb desktop print quality. There will be dozens of my newly revised *Incredible Secret Money Machine II* books going to the better entries, with an all-expense-paid (FOB Thatcher, AZ) *tinaja quest* for two going to the very best of all. Let's hear from you. ❖

UPDATE: More justification improvements in *Blat 26*

Microcomputer pioneer and guru Don Lancaster is the author of 35 books and countless articles. Don maintains a US technical helpline you'll find at (520) 428-4073, besides offering all his own books, reprints and consulting services.

Don has a free new catalog crammed full of his latest insider secrets waiting for you. Your best calling times are 8-5 weekdays, Mountain Standard Time.

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