

Writing for Today's Readers

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Fundamentals of Technical Writing

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There is a link to download these slides.

Writing still matters. Why?



But things have changed

Technology

Culture



In many (not all) situations, readers will give you less attention

So what do we do?

We write shorter and simpler:

The wages which enable any workman to live are necessarily higher, if his work is liable to intermission, than if it is assured and continuous; and however severe the struggle for work may become, the general law will always hold, that men must get more daily pay if, on the average, they can only calculate on work three days a week, than they would require if they were sure of work six days a week. Supposing that a man cannot live on less than a shilling a day, his seven shillings he must get, either for three days' violent work, or six days' deliberate work. The tendency of all modern mercantile operations is to throw both wages and trade into the form of a lottery, and to make the workman's pay depend on intermittent exertion, and the principal's profit on dexterously used chance.

Revised for today's readers

A worker will willingly accept lower wages in return for a full week of guaranteed work. But when workers are hired only on a *daily* basis, they are desperate to get the highest possible wage for each day of work.

For example, if a worker needs seven shillings a week to survive but doesn't know how many days of work he'll get, he will take extreme steps to get that seven shillings as early in the week as possible.

This is an unalterable law of economics.

Because business owners—hoping to pay the lowest possible wage—typically refuse to offer steady work, they turning employment into a kind of lottery. They are gambling in the hope of paying less, while workers take chances trying to get the most for each day's work.

We agonize about what to leave in and what to take out

- How much background (“context”) does your user need?
- What aspects of the topic need to be mentioned at all?
- How much detail do you go into?

Ginny Redish, *Letting Go of the Words*

But don't go overboard: “People don't read anymore”

- “People don't read anymore.”
- “People won't read on the screen.”
- “People just skim and look for information nuggets.”

Really? Always?

Cerebral Palsy Prognosis

With proper therapy, many people with cerebral palsy can lead near-normal lives. Even those with very severe disabilities can improve their condition significantly, although they will never be able to live independently.

Approximately 25% of children with cerebral palsy have mild involvement with few or no limitations in walking, self-care, and other activities. Approximately half are moderately impaired to the extent that complete independence is unlikely but function is satisfactory. Only 25% are so severely disabled that they require extensive care and are unable to walk.

Of the 75% of children with cerebral palsy who are eventually able to walk, many rely on assistive equipment. The ability to sit unsupported may be a good predictor of whether a child will walk. Many children who can sit unsupported by age 2 years eventually will be able to walk, while those who cannot sit unsupported by age 4 years probably will not walk. These children will use wheelchairs to move around.

The likelihood of medical complications of cerebral palsy is related to the severity of the condition. Generally, the more severe the CP, the more likely are related conditions such as seizures and mental retardation. Individuals with quadriplegia are much more likely than those with diplegia or hemiplegia to have these related conditions.

- Seizure disorders occur in about one third of people with cerebral palsy.

- Mental retardation occurs in about 30% to 50% of people with cerebral palsy. Standardized tests that evaluate primarily verbal skills may underestimate a child's intelligence level.

- Obesity is a common problem in children who are confined to a wheelchair or are unable to move freely.

Life expectancy in people with cerebral palsy also is related to the severity of their condition. People with milder forms of cerebral palsy have the same life expectancy as the general population. Those with severe forms of cerebral palsy typically have a shorter life span, especially if they have many medical complications.

With the advances in medical care and the awareness that children with cerebral palsy merit aggressive treatment of any acute condition that is treatable, the average life expectancy has increased. As a result, it is not unusual to see adults, even those with severe forms of cerebral palsy, reaching 50 and even the 60 years of age.

Adults with cerebral palsy are likely dependent on others for activities of daily living and in need of continuous support. The parents may be no longer alive or with limitations in the ability of providing support. Unfortunately, at the present time there are very few medical services that are oriented to treat adults with cerebral palsy.

Historically, cerebral palsy has been a condition of children, however, at the present time there is a sizable and growing number of adults with cerebral palsy. In addition, there are few internists or general practitioners with expertise in CP. Just recently a few academic adult hospitals offer formal training positions in the area of developmental disabilities. These adults with cerebral palsy need strong advocacy to guarantee the services they need.

Some studies have found that abnormalities of muscle tone or movement in the first several weeks or months after birth may gradually improve over the first years of life. In one study, almost 50% of very young infants thought to have cerebral palsy and 66% of those thought to have spastic diplegia “outgrew” these signs of cerebral palsy by age 7 years. Many children do not manifest full motor signs that are suggestive of cerebral palsy until aged 1 to 2 years. Thus, some propose that the diagnosis of cerebral palsy should be deferred until the child is aged 2 years.

End of Life Issues

Counseling and advice is very important when individuals with cerebral palsy present with serious medical conditions. Unfortunately, some people will make decisions believing that persons with cerebral palsy have “a poor quality of life” to start with. This approach is very dangerous since it leads to the limitation of medical services offered to the person. In some instances it is appropriate to limit some medical options. For example, a person with severe scoliosis with distortions in the shape of the thorax may not be a good candidate for cardiorespiratory resuscitation because it could result in rib fractures and, in the end, it will be ineffective. Hospice care may be appropriate for a person with a terminal disease that has no treatment. However, certain medical conditions including pneumonia, sepsis, and cardiac insufficiency can be treated. In these instances, the decision to treat or not to treat should not include as a factor the fact that the individual has cerebral palsy or cognitive deficiencies.

Medically Reviewed by a Doctor on 2/19/2013

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We make our texts more structured and more visual

essential difficulty which has to be overcome in a just organisation of labour. The subject opens into too many branches to admit of being investigated in a paper of this kind; but the following general facts bearing on it may be noted.

The wages which enable any workman to live are necessarily higher, if his work is liable to intermission, than if it is assured and continuous; and however severe the struggle for work may become, the general law will always hold, that men must get more daily pay if, on the average, they can only calculate on work three days a week, than they would require if they were sure of work six days a week. Supposing that a man cannot live on less than a shilling a day, his seven shillings he must get, either for three days' violent work, or six days' deliberate work. The tendency of all modern mercantile operations is to throw both wages and trade into the form of a lottery, and to make the workman's pay depend on intermittent exertion, and the principal's profit on dexterously used chance.

16. In what partial degree, I repeat, this may be necessary, in consequence of the activities of modern trade, I do not here investigate; contenting myself with the fact, that in its fatallest aspects it is assuredly unnecessary, and results merely from love of gambling on the part of the masters, and from ignorance and sensuality in the men. The masters cannot bear to let any opportunity of gain escape them, and frantically rush at every gap and breach in the walls of

Fortune, raging to be rich, and affronting, with impatient covetousness, every risk of ruin; while the men prefer three days of violent labour, and three days of drunkenness, to six days of moderate work and wise rest. There is no way in which a principal, who really desires to help his workmen, may do it more effectually than by checking these disorderly habits both in himself and them; keeping his own business operations on a scale which will enable them to pursue them securely, not yielding to temptations of precarious gain; and, at the same time, leading his workmen into regular habits of labour and life, either by inducing them rather to take low wages in the form of a fixed salary, than high wages, subject to the chance of their being thrown out of work; or, if this be impossible, by discouraging the system of violent exertion for nominally high day wages, and leading the men to take lower pay for more regular labour.

In effecting any radical changes of this kind, doubtless there would be great inconvenience and loss incurred by all the originators of movement. That which can be done with perfect convenience and without loss, is not always the thing that most needs to be done, or which we are most imperatively required to do.

17. I have already alluded to the difference hitherto existing between regiments of men associated for purposes of violence, and for purposes of manufacture; in that the former appear capable of self-

A Guide to Choosing a Canoe

Introduction	If you're looking to start canoeing and to purchase a canoe, there are many factors to consider. Here is a guide to the major issues.		
Flatwater vs. Whitewater Paddling	One of the most important questions you need to ask is whether you intend to paddle flatwater or whitewater. Flatwater refers to lakes and relatively quiet rivers. Flatwater paddling is typically a relaxed activity in may only demand modest canoe skills. Whitewater refers to fast-moving rivers and streams, typically with rocks and other obstructions. Whitewater is typically a demanding intense, demanding, and even dangerous activity. You must have significant training to paddle whitewater.		
	Flatwater Canoes Flatwater canoes differ according to use. Racing-style flatwater canoes are narrow (perhaps 28 inches at the center) with a sharply tapered bow. Whether you race them or not, they are great fun for quiet rivers and lakes in favorable weather conditions. However, to paddle on large lakes, where you may venture a considerable distance from shore and where there may be choppy waves, you may want a "bigwater" flatwater boat. Such boats are wide (perhaps 36 inches) in the center, and they are "dry"—designed not to let waves splash over the hull. They sacrifice some speed for stability, seaworthiness and the ability to carry heavy loads. Naturally, there are boats that are comprises between racing and bigwater. Because flatwater canoes do not need to withstand collisions with rocks and other obstructions, they can be constructed from a variety of materials:		
	Materials	Because flatwater canoes do not need to withstand collisions with rocks and other obstructions, they can be constructed from a variety of materials:	
		Fiberglass	Fiberglass, in its various forms, is one of the most prevalent construction materials. It is inexpensive, durable, reasonably light and can be easily worked into almost any hull design. Price and quality, of course, varies.
	Kevlar/ Graphite	Kevlar and graphite are used to make expensive, high-tech canoes. These boats are not as durable as fiberglass but are extremely light. They are typically used to make very fast boats.	

Text can be very visual.

How do we find good structure? It's hard

- Good structure is
 - (1) Sequence, and
 - (2) Subordination
- Is driven by the reader's information needs.
- Often can be built around

Situation → Problem → Solution

So what do we do?

We consider the medium: desktop web, mobile, eBook, print, etc.

How big a difference does the medium make?

Some, but not so much.

Reduced stickiness

Smaller viewing area

Multiple pathways

Be Succinct! (Writing for the Web)

by [JAKOB NIELSEN](#) on March 15, 1997

Topics: [Writing for the Web](#)

The three main guidelines for writing for the Web are:

- Be **succinct** : write no more than 50% of the text you would have used in a hardcopy publication
- Write for **scannability** : don't require users to read long continuous blocks of text
- Use **hypertext to split up** long information into multiple pages

Short Texts

Reading from computer screens is about **25% slower** than reading from paper. Even users who don't know this human factors research usually say that they feel unpleasant when reading online text. As a result, people don't want to read a lot of text from computer screens: you should **write 50% less text** and not just 25% less since it's not only a matter of reading speed but also a matter of feeling good. We also know that users don't like to scroll: one more reason to keep pages short.

The screen readability problem will be solved in the future, since screens with 300 dpi resolution have been invented and have been found to have as good readability as paper. High-resolution screens are currently too expensive (high-end monitors in commercial use have about 110 dpi), but will be available in a few years and common ten years from now.

Scannability

Because it is so painful to read text on computer screens and because the online experience seems to foster some amount of impatience, users tend not to read streams of text fully. Instead, users scan text and pick out keywords, sentences, and paragraphs of interest while skipping over those parts of the text they care less about.

Skimming instead of reading is a fact of the Web and has been confirmed by countless usability studies.

Webwriters have to acknowledge this fact and write for scannability:

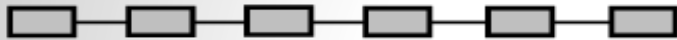
- Structure articles with two or even three levels of **headlines** (a general page heading plus subheads - and sub-sub-heads when appropriate). Nested headings also facilitate access for [blind users](#) with screenreaders
- Use meaningful rather than "cute" headings (i.e., reading a heading should *tell* the user what the page or section is about)
- Use **highlighting and emphasis** to make important words catch the user's eye. [Colored text](#) can also be used for emphasis, and hypertext anchors stand out by virtue of being blue and underlined

Hypertext Structure

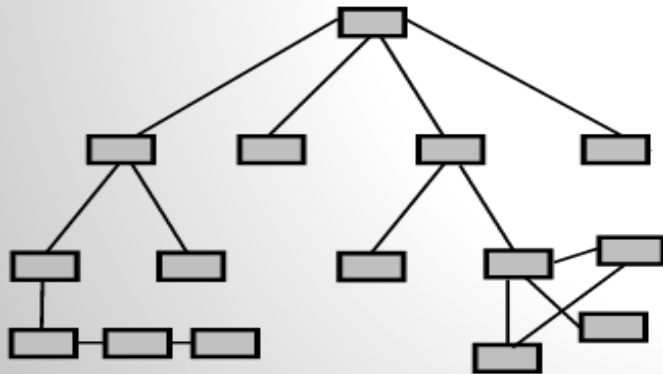
Make text short without sacrificing depth of content by [splitting the information up into multiple nodes](#) connected by hypertext links. Each page can be brief and yet the full hyperspace can contain much more information than would be feasible in a printed article. Long and detailed background information can be relegated to secondary pages; similarly, information of interest to a minority of readers can be made available through a link without penalizing those readers who don't want it.

But . . . Nielsen's guidelines apply to print as well as to the web.

Multiple pathways: Linear vs. non-linear structure



Pre-requisite information



“Backfill” links

Modular writing

So what do we do?

We use good writing *style* to reduce the reader's cognitive load



Even the lowly comma:

The website will be informal but business-like creating a contemporary corporate vibe.

Some guidelines for good writing *style*

- Control pacing
- Don't be afraid of “I” and “we.”
- Favor direct syntax.

Information pacing (density) is the ratio of ideas over number of words

The low-quality wood of the red cedar cannot be used for lumber, and by competing with forage vegetation, it threatens open-range species.

Because red cedar is a low-quality wood, it cannot be used for lumber. Furthermore, because it competes with forage vegetation, it threatens wildlife species that need open range.

Red cedar is a low-quality wood. It cannot be used for lumber. Furthermore, it competes with forage vegetation, and for this reason red Cedar is considered a threat to many wildlife species that need open range.

Control pacing (information density)

Dense

Middle level

Loose

- Dense, fast-pace writing can be hard to absorb.
- Slow paced, flabby writing can be boring.
- Try to stay somewhere in the middle.
- Slow the pacing when the audience is not familiar with the subject matter.

Canoe purchase is complex, entailing many trade-offs.

Purchasing a canoe is complex. There are many trade-offs to consider.

Don't be afraid of "I" and "we"

- If you are really talking about yourself or your team or group (etc.), definitely use "I" and "we."
- Otherwise, you typically get sentences that are painfully indirect and ambiguous.

Use direct syntax

In general . . .

- Keep the subject of the main clause short.
- Make the subject the agent (“doer”) of the action. Make the verb the central action.
- Locate the most complex information after the verb.
- End the sentence on a “strong” word. This word may be echoed by the subject of the next sentence.

Revise for more direct syntax

- Subject should be short.
- Subject should be “doer.” Verb is central action.
- Complex information comes after the verb.
- End the sentence on a “strong” word.

Following the OSHA inspection, the elimination of eye exposure from flying debris was achieved by the requirement of goggles. The goggles were chosen . . .

The number of prototypes was a great opportunity to better understand the design space.

There are many ways to express even a simple idea

We eliminated eye exposure by requiring goggles.

The requirement of goggles eliminated eye exposure.

Eye exposure was eliminated when we required goggles.

Find and use a good (for you) writing process

Especially for longer documents:

- Get started early
- Incubate your ideas. (This includes doing research and getting feedback.)
- Provide ample structure (Best done with the outliner.)
- Make your text visual.
- Pick the perfect time/place/conditions.
- For most people: Blast it out. (Defer small-scale editing.)
- Have someone look at your draft

Wrap-up: Writing matters, but it's changed. So, what do we do?

- Write shorter and simpler
- Agonize about what to leave in and what to take out.
- Make our texts more structured and more visual.
- Consider the medium.
- Use a good writing style.
- Find and use a good (for you) writing process.