chapter 19 |

Challenges

Idea #1: Shorten that Text!

Cut Any Paper-Based Text by 50%
Rewrite to shrink by 50%.

1) The agency has created this privacy statement in order to demonstrate our firmly held commitment to the protection of your privacy. We comply with widely held privacy principles, and the following material discloses our information-gathering and information-dissemination practices for our site. Because of our deep commitment to the principles of disclosure and informed consent, we have agreed to disclose our information practices to you at this time so you may make an informed decision about the privacy of your personal information.
81 words

(2) We, of course, have a number of closely related objectives all focused on vitrification of Rocky Flats ash. Our project, or at least the project we are proposing here, will endeavor to optimize or at least improve, and at the same time to demonstrate methods for forming glass from both simulated experimental ash and actual ash samples, in effect processing it, with the long-range purpose to vitrify any and all incinerator ash coming from the Rocky Flats Environmental Technology Site (RFETS). The purpose and intent of said vitrification is to stabilize the material, so as to prevent further degradation, washout, gas generation, or potential interaction with the surrounding environment. The ultimate long-term aim of the project is to produce a stable waste form that can be discarded to the Waste Isolation Pilot Project (WIPP) in southern New Mexico.
138 words

(3) Traditionally, when technical writers speak of software documentation, they are generally speaking about manuals for people often called end users, and certainly these technical writers have every right to do so, because user manuals are so necessary. In fact, user manuals produced by engineers (and I am proud to count myself as an engineer) have often been so poorly written and so poorly organized, so downright badly written and poorly organized in general, that a whole section of the bookstore has sprung up, for third-party books explaining the software that these manuals did such a poor job of explaining in the first place. Note, also, video training courses, and audiotapes, and workshops everywhere. But I must point out that there is much more to documentation than user manuals because engineers need their own documentation, such as the original requirements docs, then the specs, and as the design grows, we have the design documents, test plans, and test results, and finally, manuals for the people who come after us to maintain the product.
173 words

Make Each Paragraph Short
Rewrite in short paragraphs, revising freely.

(1) As you consider purchasing a new handheld device, the thing to do before anything else is to endeavor to determine where and in what circumstances you might be utilizing such a device.
32 words

(2) In my humble opinion, it is absolutely required that we all show courtesy to each and every member of the discussion list, just as we would show courtesy to people we meet and encounter on the street, or elsewhere, when

we talk with them in person, if you know what I mean. We should all think this issue over in a serious way, I believe, so that we do not cause undue emotional disturbance for other members.

77 words

(3) Do you sense that your computer takes longer to find and open a file than it used to? You may have thought at first that you were just imagining the slowdown, but over time you have come to conclude that, yes, every time you ask a program to open a file, you have to wait longer and longer. A common cause of this gradual decline in performance is **file fragmentation**. You see, all the space on your hard disk is divided up into discrete areas, called *clusters*. When you ask the computer to save a file on your hard disk, the operating system breaks the file up into a whole series of pieces, each of which is the size of a cluster. When you first use your hard disk, a file can be easily fitted into a bunch of neighboring clusters, so you can open all the pieces quickly. But as time goes on, and you keep adding, changing, and deleting files on the disk, all those pieces of the original file may get scattered across the whole surface of the disk. The file becomes fragmented. Now the computer has to take longer to find all the pieces and bring them together for you to work with as a unit. That's why you notice the slowdown whenever you try to open a file. Our Swoop utility can help. It examines the way the pieces of each file are laid out on the hard disk, and then pulls together all the pieces in nearby clusters, for faster access. In addition, Swoop locates the occasional empty cluster and moves those all together, to make room for any new files you need to save. The process of moving all the fragments of a file into contiguous clusters may take an hour or so, if you have a hard disk with 2 gigabytes of information on it. But after that cleanup, you will find you are not waiting around every time you choose Open from the File menu. Like spring-cleaning, Swoop takes a while, but has long-lasting good effects.

345 words

Delete Marketing Fluff
Rewrite omitting exaggerated or boastful language.

(1) Since its brilliant beginning at a top-rated international laboratory, the World Wide Web, or the graphical and interactive side of the vast and complicated network of networks known as the Internet, has swept the computing world, and indeed, the whole world of business, like a tidal wave. The Web wows end users because it offers such incredibly intuitive technologies as fast and accurate searching, hypertext navigation, and instantaneous connection with information in almost every country in the world.

78 words

(2) Recently, our premiere team of world-class scientists and top-rated engineers celebrated the remarkable discovery of the neutrino 40 years ago by Frederick Reines and Clyde Cowan while working for the Laboratory. The Reines and Cowan Nobel Prize-winning research on neutrinos was a fantastic demonstration of the incredible synergy of mission-oriented, applied, and basic research. Impressive, too, is the amazing progress made in neutrino physics over the last 40 years. Our researchers have continued to be at the leading edge of this exciting field of science.

85 words

Move Vital but Tangential or Supplemental Material
Circle text that could be moved into links.

(1) There are certain programs you ought to run regularly, but you may tend to postpone using them because they take up valuable time. Programs you should run at regular intervals include those that defragment your disk, compress your files, run backup, or clear up errors on your disk. Use the System Agent, if installed, to run a program automatically on a schedule that doesn't interfere with your work. If you installed Microsoft Plus, you already have a copy of System Agent installed and activated; its icon, which looks like a calendar with a document and clock on top, appears on the Taskbar. You tell the System Agent what program you want it to run, and when—every hour, or day, or week, after a certain amount of idle time.

(2) Our technical capabilities are clustered into eight major areas called *core technical competencies*. The Complex Experimentation competency, for instance, focuses on novel sources such as accelerators, high-power lasers, high explosives, and pulsed-power systems; measurements employing multidisciplinary suites of diagnostics or one-of-a-kind measurement systems for a wide range of physical conditions; and applications and research and development (R&D) facilities for handling radioactive, explosive, and hazardous materials or processes. Other competencies include Theory, Modeling, and High-Performance Computing; Analysis and Assessment; Nuclear Weapons Science; Earth and Environmental Systems; Nuclear Materials; Bioscience; and Plasmas and Beams. Historically, the Laboratory's core competencies grew out of its original mission, which was, of course, developing and maintaining the nation's nuclear deterrent, as described in History on the Plateau. These competencies are now not only key to meeting the challenges of the Laboratory's central mission of reducing the global nuclear danger but also contribute to and are sustained by carefully selected civilian programs, as described in the *Civilian Outreach Handbook*, and industrial collaborations, described in *Profits for All*. A core competency involves a team of technical staff members, who plan, build, and develop Laboratory capabilities and provide input to scientific thrusts and areas in which the Laboratory may invest. A core competency requires the integration of diverse capabilities, an array of disciplines, specialized facilities, and operations expertise. The ability to solve such problems is a distinguishing characteristic not easily duplicated by other organizations.

Move Repeating Categories of Information into Tables, Charts, or Graphs
Withdraw data and put it into a table; then write a brief summary.

Tufte measured what he calls data density (numbers per square inch) in the statistical graphics in various science journals. He found, for instance, that Nature's tables showed a minimum of 3 numbers per square inch (not good), a maximum of 362 (much better), and a median of 48 (pretty good, as a median). Science, however, had a minimum of 5, and a maximum of 44, with a median of 21—not nearly as dense as Tufte would approve. The New England Journal of Medicine had a minimum of 3, and a magnificent maximum of 923, but fell to a median of 12—a severe disappointment. Two newspapers and one business journal outdid the medical journal. The Wall Street Journal had the best median of this group, with 19 numbers per square inch; both Fortune and the London Times came close behind, with 18. Interestingly, the worst newspaper on Tufte's list, the old Commie outlet Pravda, had a maximum of one number per square inch, a minimum of 1/10th of a number per square inch, for a median of 0.2 numbers per square inch. Overinflated. So there is often a wide variation within each publication, but overall, "the average published graphic is rather thin."

203 words

Beware of Cutting So Far That You Make the Text Ambiguous
Rewrite to remove ambiguities.

(1) When the object's message handler learns the parameters, options, or arguments don't match its criteria, the personnel responsible receiving message turndown revise or cancel the message originally sent.

(2) The mathematicians assumed values for the variables (specifically those for dollar amounts, unit prices, totals, and running totals) should not be specified, or had not been defined.

(3) The engineers regularly maintained the software, which had been written years before using COBOL, was such spaghetti that no one could safely repair it.

(4) The parameters input by the testing team suggested a move toward object-oriented programming, particularly using Java, but perhaps with C++, might be going too far afield from our core C code.

Create a meaningful title
Improve these titles in 64 characters or less.

(1) From a proposal for a desalinization plant in Santa Barbara, CA, to distribute distilled water via pipelines to the Southwest: Our Idea

(2) From the menu of a Web store, offering a FAQ and help for using the site: User Information

(3) From a report on successful use of micro machines to monitor and control the transmission of a vehicle on slippery surfaces, particularly wet or icy roadways, but also including excessive gravel or sand and oil slicks: Little Machines

(4) Making Sure That Your Important Documents Will Be Visually Rendered Successfully on Multiple Platforms, Including a Plain Text Terminal

(5) A 100-page book in which the opening chapter's title is An Integrated Planning Process to Support DOE Missions by Anticipating Customer Needs and New Opportunities in a Competitive Economy. Current book title: Our Commitment.

(6) An inspirational message to sales people based on the life of Arnold Schwarzenegger, focusing on his individualism, visualization techniques, hard work, and willingness to take risks. Current title: Poster Publishing Company: Business and Management Books: New

2b. Insert meaningful headlines and subheads
Insert headings and subheads (and rewrite if you need to).

(1) For each item on the bill of materials, you need to define whether or not that material will be pushed out of the warehouse, to await use on the line, or pulled from the warehouse just in time to be used during assembly.

Pushing ensures all supplies are there on time, but wastes valuable floor space while you wait for the assembly to get to the point where the materials can be used. Pushing resembles traditional manufacturing. Pulling depends on an intelligent conveyor system, triggered by the software, to offload the material from racks and bring it to the right spot on the floor at the right time. Pulling takes a while to fine-tune, because there are so many physical problems possible, but once pulling has been established, it saves space on the work floor. Pulling is the more contemporary method of manufacturing. Because each item's method of delivery must be defined when creating the bill of materials, you now need to choose between push and pull.

(2) The actinide elements thorium and uranium are found in orthosilicate neutral minerals. Thorium orthosilicate forms tetragonal thorite and monoclinic huttonite; uranium orthosilicates form tetragonal coffinite. These tetragonal orthosilicates are isostructural with zircon. Zircon, because of its durability ($\tilde{ }10^a$ years), has been proposed as a host mineral for deep borehole burial of high-grade plutonium that has been recovered from dismantled nuclear weapons. The objective of the project is to develop a material containment system for processing plutonium-bearing zircon under high temperature and high pressure. As to the scope of the project, specifically, researchers will investigate container systems that can withstand temperatures near 1500°C that can be compressed isostatically at pressures near 10,000 psi, and that are inert to reaction mixtures. The benefits include support for actinide competency in thermodynamics, synthesis, materials science and pyrochemistry. The results of this work should provide parameters for safe preparation of a very stable waste form for short and long term disposition of excess plutonium from weapons.

Highlight key words and phrases—and links
Highlight key phrases in each paragraph, cir the text to show bolding, and putting brackets around text that should form a <link> to additional information or another page.
(1) The Greedarama Program is the ULTIMATE portal for ABSOLUTELY FREE bonuses, rewards, and specials. Earn points toward incredibly valuable big-name-brand merchandise, hotel discounts, frequent-flyer miles, and much, much more. Just sign up now in the <u>sign-up section</u> of our Web site.

(2) We all solve problems, but most of us have a hard time explaining how we do it. The Gestalt psychologists argue that when we work on solving a problem, we struggle to relate each component of the situation to all the other components. We reach for a structural understanding. We start with a goal in mind, and we reorganize the elements of the problem situation in a new way so that they allow us to reach our goal, thus "solving" the problem.

Because the Gestaltists emphasize organizing as a way of thinking, their work dovetails nicely with the work of their fellow Gestaltists on perception. Gestalt perception studies argue that perceiving is an activity in which the mind imposes an orderly structure on the rush of incoming stimuli. Arnheim's book *Visual Thinking* popularized this approach. You might say that in the Gestaltist view, we reorganize what we see in front of us, mentally or physically, until we see what we want—an orderly structure that may draw us closer to our goals.

(3) Computer simulation of nuclear weapons requires not only the most powerful computers available but also the ability to transfer huge amounts of computational data and the capability to display this data in forms that can be more easily understood and analyzed. Our researchers have pushed fast data-transfer network technology, making it now possible to use the combined computational power of supercomputers at the three nuclear weapon laboratories and NCSA centers to solve very large, complex problems. The resulting displays involve advanced multimedia technology.

(4) The science and technology of satellite remote sensing is an emerging, rapidly growing, interdisciplinary field with many global and regional applications that require quantitative sensing, from space, of Earth's surface features as well as its atmosphere. It is possible today to resolve structures on Earth's surface that are as small as one meter. If this high spatial resolution is coupled with high spectral resolution per pixel (as is possible, for example, with a spectrometer in space), instant object identification can also be achieved. To interpret these spectral signatures (e.g., for plutonium or uranium) correctly, it is necessary to perform a computational correction on the satellite imagery that removes the distorting effects of the atmosphere.

Turn any series into a bulleted or numbered list
Rewrite using bulleted or numbered lists, to open these passages up to skimming.

(1) The person who is humble and retiring has three characteristics: mysterious, charm, unspectacular excellence, and unnoticed influence. We consider the charm mysterious because the person does nothing we can see to draw our attention. We call the excellence unspectacular because the person does not boast, or make announcements, but completes all work with thoroughness. We call this person's influence unnoticed because although everyone looks to this person as an authority, they hardly mention the name. The influence spreads like water underground, invisible.

(2) The TCP/IP protocol is found in major operating systems, such as Windows 95, Windows 98, Windows Me, Windows NT, Windows 2000, and Novell's NetWare, a LAN operating system. Because it appears in so many operating systems, TCP/IP has become the most common way to connect desktop PCs and workstations with each other within an organization and over the Internet. But customers have asked for a number of innovations to make TCP/IP more reliable in mission-critical applications: expanded addressing capability, so it does not run out of addresses, additional security features, to prevent hacker break-ins, autoconfiguration, to save installers' time, and real-time service, to enable transactions. Moving from 32 bit to 128 bit addresses will probably solve the first problem, all vendors agree; but on the other improvements, vendors disagree, and have, so far, refused to agree on standards. Some vendors are offering their own security packages; others are creating new ones specifically to work with TCP/IP. Autoconfiguration, unfortunately, can be done in dozens of ways, and vendors are looking at all of them. Real-time services tend to be the playground of mainframers, so IBM and ATT lead the way, here, with PC vendors trailing badly. Our estimate is that the new standard is at least one year away (due 2005, June), and even then the standard may be a weak one in the real-time and autoconfiguration areas.

(3) We have made important contributions to advanced manufacturing technologies relevant to the nuclear weapons program, including laser-machining, laser-aided deposition of metals to form component parts to near-final tolerance, fast casting to bypass traditional machining operations, extreme ultraviolet lithography with high resolution, and robotics for advanced manufacturing and dismantlement. These projects, carried out at the three nuclear weapons laboratories, contribute to both basic and applied research.

Make clear what the user will get from a link
In an imaginative paragraph, make up context and link names for the following:

(1) A lengthy and fully illustrated article in the *National Geographic* on your favorite travel destination.
(2) *The Sun Guide to Web Style,* developed by Rick Levine, at http://www.sun.com/styleguide.

(3) A 750-word article on painting and drawing software for 7-10 year olds, with references to reviews of ten new titles, and two small screenshots, on a Web site with articles about children's software.

(4) Five press releases from your current organization, for the top of the Press page.

(5) A summary of software simulation tools that model radiation, material, and heat flows in nuclear explosions.

Within a sentence, make the link the emphatic element
Rewrite to emphasize the links to the Icon Legend, and definitions of document, Electronic College, and header.

A document is an important concept in our <u>Electronic College,</u> because any library search will result in a listing of all documents that meet your search criteria. A <u>document</u> may be as long as a textbook, or as short as a bibliographic citation for an article we do not have in the library. Next to each document is an icon, indicating what kind of document it is. See the <u>Icon Legend</u> for a complete explanation of the icons. A header appears when you click an icon, or the document title, identifying the document's title, author, publication, topics, and, in most cases, providing an abstract. Following the <u>header</u>, the actual document usually appears below, although, in some cases, the header is all that we are able to provide at this time, due to circumstances.

Shift focus from the links or or the linked-to documents to to the subject
Create new sentences replacing lame phrases by shifting the focus from the link or document to the subject matter, which you can invent.

Information on the California state mascot, the snail, is <u>available</u> at http://www...

Here's a great <u>site</u> on armadillos. <u>Check it out</u>.

<u>Click</u> this button to get the article about the gas chromatograph/mass spectrometers for on-site identification of ultra-small traces of certain compounds.

The article <u>describes</u> the problems faced by inspectors who must count the number of warheads on a missile without disassembling the missile.

These <u>documents</u> are available on the U.S. Census site.

Here is a <u>link</u> to the best site on the history of Barbie.

A <u>hotlink</u> to a cool site on ice cream... .

<u>Link to</u> Heaven to get the latest on angels.

Here is a <u>list</u> of items characterizing the syndrome... .

Information about hand-painted saints is also <u>offered</u> at the New Mexico Gigasite... .

<u>Point your browser</u> at this hot site for flaming chilies, and ... .

Press <u>this button</u> for an amazing experience of virtual reality.

This site <u>provides a description</u> of the methods for detecting clandestine nuclear explosions in the upper atmosphere, by detecting low-frequency sound waves, which can travel and be detected at great distances.

<u>Select here</u> for inside dope on pineapple canning.

<u>Surf</u> on over to the Diamond Anvil Cell (DAC) Site.

—Featuring some phrases attacked in Levine (1997) based on material from Jutta Degener.

Provide depth and breadth through plentiful links to related information within your site

Rewrite this introduction to a 12-page white paper, creating headings for each section you want to link to, and turning those into links embedded in your text.

In this report, we answer a number of questions our customers have raised about ISDN service. We explain how ISDN works to bring you faster Internet access, ranging from real 56K or 64K service up to 128K. Installation has traditionally been tricky and complicated, but now that the local phone company has some competition in this area, we have seen the process become a lot smoother for most customers. You'll need equipment resembling your current modem, and you must have relatively new wiring in the building; at the same time, the ISDN provider must have a switching office within three miles of your home or office. Rates for the connection vary by provider. Because ISDN dramatically increases the throughput for our servers, we charge a premium rate, which varies depending on the actual speed you decide on, and the number of hours per month. Benefits include fast loading of graphics, animation, and video; almost instantaneous loading of pages with a lot of text; and a decrease in the amount of time you must stay on line, to get the same amount of work done.

Establish credibility by offering outbound links

Break the original paragraph into smaller paragraphs and add outbound links to sites 1 through 4.

Original Paragraph

For many years our programming tools have limited our understanding of the business. Starting with COBOL, and continuing to the present, we have conceived of data as resting like raw materials on shelf after shelf of some industrial warehouse, until ready to be worked over by applications, which act somewhat like factories, bringing the data in, manipulating it, and then placing the finished data back on the right shelves. With this model—all that we could imagine, given our languages, back in the early 1960's—we have spent decades decomposing the data into smaller and smaller pieces, each group in its own little database, with its own application. But the business doesn't run that way. Now that we have object-oriented languages, we can begin to see that our business

model needs to change, and can change. The first step in that direction is to analyze the way the business actually runs—who does what, with what objects—postponing any concerns about implementation. We need to be able to describe the business the way our users see it. We also need to distinguish between the purpose of an activity (what it does) and the current process (how it's done) because the process itself is likely to change during business process reengineering.

Sites for books and articles you could link to at other sites, if you rewrite the original passage. (To form a link here, just put the number of the site in brackets in your text).

1) On the separation between "what it does" and "how it works."
—E.W. Dijkstra, <u>The Structure of the THE Multiprogramming System</u>, *Communications of the ACM*, Vol. 11, No. 5, 1968.

2) On modeling the real business of the organization, rather than the computer's architecture.
—Robert Shelton, <u>From the Editor</u>, *Hotline on Object-Oriented Technology*, November 1992.

3) On specifying the business rules independent of their implementation in a computer system.
—Haim Kilov and James Ross, <u>*Information Modeling: An Object-Oriented Approach*</u>, Prentice-Hall, 1994.

4) On building an ideal-object model of the information system, independent of the implementation environment.
—Ivar Jacobson, Maria Ericsson, and Agneta Jacobson, <u>*The Object Advantage: Business Process Reengineering with Object Technology*</u>, ACM Press, Addison-Wesley, 1995.

Show where we are
Lay out the current page so that the users know where they are.
The current page has no heading at the top, but the topic seems to be the benefits of business process re-engineering (BPR). To get here, the user started on the home page and chose Solutions, then Re-Organization, then Business Process Re-engineering, then Benefits. On the home page, in addition to Solutions, your company offers Products, White Papers, Alliances, Press, Investors, and Search. Within Solutions, the options are Manufacturing, Finance, Construction, and Re-Organization. Within Re-Organization, the options are Global Initiatives, Vertical Structures, Departmental Upgrades, and Business Process Re-Engineering. Within the Business Process Re-Engineering page, there are options for Benefits, Case Study: Rio Enterprise, Case Study: CitiCorp, Case Study: AT&T, Planning, Designing, Implementing, Maintaining, and Upgrading.

Create a trail of breadcrumbs to show users where they are on the Nuclear Waste Disposal site.
On the home page, users can choose to go to pages about the melting curve of plutonium, recovering plutonium, recovering actinides and toxic metals from various process streams, and developing sensors for monitoring special nuclear materials. If someone chooses to find out about the melting curve of plutonium, a submenu appears offering an overview, a description of the Diamond Anvil Cell (DAC) apparatus, the improved laser-heated DAC, using the DAC to model implosion devices, improving the precision of measurements, and summarizing the results of the much improved understanding of implosion processes. The current page spins off this last one, and it describes the better prediction of device performance, available now because of these improved high-temperature and high-pressure measurements.

Make meta information public

Invent meta information for this page:

- Your name as an e-mail contact
- Date of last update (an indication of how often you update)
- Status of the information
- URL of your site (as you imagine)
- Copyright
- Links to other parts of the site (as you imagine)

First paragraph:

I've put together various e-mails on the subject of object-oriented documentation, but none of these should be considered a fully reasoned discussion. The following is more in the nature of a rough draft, put forward to provoke discussion. A lot of the e-mail springs from the 2001 IEEE meeting in Salt Lake City, and so, as time goes by, this document will be a kind of time capsule. I hope to expand it into a more formal paper during the next year, but I will leave these meandering thoughts up until they crumble with age. If you have comments or suggestions, please e-mail me at JonPrice@aol.com. Thanks.

Write URLs that humans can read

Suggest a simpler URL.

Go to any large online store and navigate to a product. How clear is the URL? If the URL is gibberish, come up with a URL that a guest could understand.

Make links accessible

Check for alternate text.

Go to any site of the U.S. government, choose View Source, and see if the team has provided alternate text for sounds, animations, image maps, images, and links. Does the page invoke a stylesheet? Are fonts defined as bigger or smaller than normal, rather than specific sizes? To what extent does the site meet its legal obligation to be fully accessible?

Tell people about a media object before they download it

Figure out how long a big file will take to download to a user who has a setup like yours.

Take a huge file on your hard disk and send it as an attachment to e-mail to yourself. Count how many seconds (or minutes) it takes to upload to your e-mail service. Then write up a description warning people who have your kind of connection how long it will take, under good conditions, to download that file. Add a description of the content, the file format, and anything else that would help someone decide whether to bother downloading.

Announce the new with special links
How up-to-date is your favorite site?
Go to a site you visit often, and figure out how you can tell what's new, and what's not. What gets updated hourly, daily, weekly, never? How could the site do a better job of announcing the new?

Write meta tags to have your pages found
Create a list of at least a dozen keywords to attract search engines to the eight-page document introduced in the following paragraph.
Increased reliance on non-nuclear experiments for stockpile certification, supported by improved computational modeling capability, has deepened our need for advanced hydrodynamic radiographic capabilities that supplement and complement traditional x-ray radiography. In addition to proton radiography and laser-sheet illumination, our researchers are developing advanced neutron-scattering techniques for application to nuclear stockpile stewardship and surveillance through advanced gamma-ray detectors, monitoring devices for nonproliferation, remote detection of chemical plumes, satellite remote sensing, and the development of global nuclear material flow models. This paper gives the United States Congress a bird's eye view of research in these areas during the fiscal year 2002.

Design each paragraph around one main idea
Carve into several paragraphs, each devoted to a single idea. Feel free to cut at will, and rewrite.
(1) One problem with unsolicited e-mail, usually advertising get-rich-quick schemes, penny stocks, diets, or pornography, but sometimes publicizing a political or moral position, boils down to the basic problem of anonymity. We believe that everyone sending an e-mail should be required to include a working return address. In the U.S. Congress, some proposed bills outlawing anonymous e-mail would allow us to hit the Reply button and send back junk mail of our own. Spam, defined as e-mail you didn't ask for or want, might be discouraged by such a law, but not killed. Really, we'd like to be able to reply to any spam saying, "Take me off your list." But when we try that, we often get a message back saying that the address cannot be found, because the Reply-To address was bogus. Although spammers don't mind filling our inbox, they don't like our complaints filling up their own server. Hence, people find spam annoying and unfair—an invasion of privacy, a waste of time, a distraction. Just deleting every piece of spam can take ten minutes a day. Another possible solution is filtering software. But it is difficult to anticipate every subject line that clever spammers might use, so that you can block those messages; and you will never be able to guess every made-up Sender the spammers might invent. Plus, the whole process of creating a Delete on Receipt list is time-consuming. So most people aren't going to bother. The Delete button still seems our best solution.

(2) The browser can be viewed as an application that runs on the client and manages the connection with the network, making the connection, transferring data, and interpreting and displaying the data received through a GUI. Graphic User Interfaces (GUIs) have a long history, going back to early work at Xerox PARC, resulting in products such as the Xerox Star and Apple Macintosh. The browser's reliance on a GUI is a manifestation of its birthdate, when GUIs were well established, with Windows beginning to dominate throughout the industry. The browser, therefore, makes pictures, text, animation, video, and sound available to the user, in a hypertext environment. To initiate a connection, the browser requests a connection with Web servers across a Local Area Network

(LAN) or Wide Area Network (WAN), using the standard Internet network protocol, Transmission Control Protocol/Internet Protocol (TCP/IP), or a gateway to TCP/IP.

Put the idea of the paragraph first
Reorganize and carve into short paragraphs, starting each one with the main idea.

(1) If you are looking for birth announcements, or wondering what our site offers, we have worked hard to put together more than 100 fabulous designs for birth announcements, in many different categories, and we are sure you will love our huge selection, which includes sports motifs, outdoor themes, Western look, and Noah's ark. Get ready for the big day by ordering birth announcements ahead of time. Browse through our designs and pick one today. Place your order right away, and as soon as your baby is born, e-mail us with your baby's name, height, and weight. Within 48 hours of your e-mail, we'll ship your specially printed announcements to you.

(2) We have adult and kid versions of this hot product. The T-stand holds the ball out for the batter to hit. This device is light and portable, and stands up to a lot of swings and misses. The payoff is that with the ball on the T-stand, the batters learn how to swing at the ball in the right way, without having to worry about the pitcher.

(3) Like the Gestaltists, Polya stresses the importance of restating the goal (working back from what you want to achieve to the materials given) and restating the givens (working forward from what you are given to the goal). Of course, these ideas are too vague to test experimentally; we cannot call his work empirically based, although it does, of course, derive from his many years teaching students to solve geometric and mathematical problems. He sketches out four steps for problem solving in *How to Solve It* (1957):

a. At first there is the period in which you try to understand the problem, during which you ask, "What do I have in terms of data, or conditions?" and "What do I want, or what is still unknown?"

b. Devising a plan, during which, based on past experience, you come up with a plan by asking, "Do I remember a problem like this? Can I restate the goal in some new way, based on what I did before? Or can I restate the givens in some new way, working forward from there to my goal?"

c. Carrying out the plan, that is, actually doing each step of your plan.

d. Then comes a period of looking back, during which you check your results by using some other method, to see if all the pieces fit together, and you ask yourself, "Can I use this method on some other problem?"

You can see that Polya's first step, in which one endeavors to understand the problem, corresponds roughly to Wallas' preparation. But part of devising the plan corresponds to that phase, as well, but includes what Wallas calls incubation and illumination, too. Looking back corresponds closely to Wallas' verification. Without careful experiments, we cannot say for sure that either description is accurate, because both are subjective; our intuition agrees with both descriptions, but science expects more of us than hunches. So Polya ends up being, simply, another example of the introspective approach—suggestive, but not scientifically validated. Polya's emphasis on rearranging our view of the givens or goal, though, resembles Gestaltian restructuring.

If you must include the context, put that first
Put the context first, if necessary. Cut and rewrite at will.

(1) Put a Rescue Mirror in your backpack, or emergency kit, along with a flashlight, so you can use it at night. The Air Force packs a mirror just like this into every survival kit, and you should too. Our Rescue Mirror helps you aim a flash of light right at the rescue team, airplane, or boat. If the rescue team can't see you, they can't save you. Do you want to catch their attention?

(2) Symmetric cryptography remains the standard way to maintain privacy when transferring privileged information over the Internet, or in any network where someone might try to hack the message. On the other hand, public-key cryptography has wider application, because it can be used between two people or organizations who do not already have an established relationship. An example is the digital signature. Like a notary seal, a digital signature guarantees that you are who you say you are, when you visit an online store. Digital signatures are hard to counterfeit, and easy to verify; in this way they are better than handwritten signatures, if privacy and security are important to you.

(3) The Paint method activates dots on the screen to represent the current frame. First, you construct the frame; then you tell Java to paint it.

We call the organic sensing layer a bucket. The shape of the molecules resembles a bucket; hence this metaphor. The microsensor is reversible and can be used to monitor continuously changing concentrations of the contaminant over an extended period of time, because the cyclodextrin buckets bind the contaminants weakly.

Put your conclusion or news lead in the first paragraph of the article
Put key conclusions first. Feel free to break up into shorter paragraphs, rewriting as you go.

(1) Taking a shower, washing dishes, and doing your laundry all add moisture to the air in your Recreational Vehicle. Any appliance generates heat, and may cause condensation on cool surfaces such as windows, doors, walls, and roof. The walls of your RV have less insulation than a house does, so cold weather makes drops of water form on the inside walls. And the tight fit prevents air from circulating to dry things out. To avoid these problems, use a vent over your stove, refrigerator, and other appliances. Lock the bathroom door when showering and keep a vent or window open. Don't hang up wet clothes inside the RV. Don't let moisture build up inside your RV. Remember—if you let moisture build up inside, it can damage the walls and ceiling of your RV.

(2) Actions available to most firewall audit programs include activating a Simple Network Management Protocol trap, signaling when the trap has snared an apparent violation, sending a mail message, relaying information to the management platform (such as Nose View, NetsetupView/6000, or HelioNet Manager), e-mailing the administrator, or shutting down an account. Thus, companies look to firewall auditing software for activity logging, application usage tracking, and security breaches. Firewall auditing software has grown beyond simple security measures to include a much more sophisticated security setup, as well as features normally associated with network monitoring software. In fact, the real news is that the two software types are merging.

(3) We do not know what the long-term effect of helium in-growth (from alpha decay) will have on the integrity of plutonium as it ages. The aging of plutonium could cause major problems for our stockpile stewardship, recertification, and, incidentally, the environment. Hence, we are particularly interested in the metallurgical condition of the metallic lattice and substructural features such as the accumulation of helium bubbles at grain boundaries, because such defect structures are known to affect swelling and cracking in other materials, and they may negatively influence the mechanical properties of plutonium under high strain. In this project, then, we have investigated helium bubble formation and distribution in aged plutonium using transmission electron microscopy, small-angle neutron scattering, and computer simulations. Thanks to these techniques, we are now able to model graceful degradation over time in plutonium under normal and high-stress conditions.

Reduce the number of clauses per sentence
Reduce the number of clauses per sentence, rewriting as you go.
(1) For newborns, toddlers, kids, and teens, these clothes, which are made in factories that are run by agricultural cooperatives in countries where there are very few jobs, and not much money to go around, look crisp and clean ven on a playground that has a lot of dust, and holds up under rough play.
(2) Beginning with the empirically verifiable a priori notions that 1) molecules exhibit differential stereotaxic affinity and 2) they interact to build up structures, promote dynamic processes, or disassemble structures, we create a model of consciousness that avoids the dualism inherent in sociological, psychological, psychobiological, and biopsychological accounts, all of which tend to define consciousness in terms of top-down or bottom-up dichotomies, because we build an all-bottom theory out of molecules (Nyborg 1994), showing how they develop from DNA to body and brain, and thence to the system's behavior within an environment, which itself is also defined entirely in terms of molecules in motion, forming complex processes such as temperature, pressure, nutrition, and culture, and finally to inter-system behavior, such as love, a special case of interaction between largely similar molecular systems involving hormones, DNA, and reproductive processes.

(3) I am not sure whether I yet made bold to say it, but I should surely be good for nothing, all my days, if not for projecting into the concrete, by hook or by crook—that is my imagination shamelessly aiding—some show of (again) mere life. This impression was not in the least the flag I publicly brandished; in fact I must have come as near as possible to brandishing none whatever, a sound instinct always hinting to me, I gather, that the time for such a performance was much more after than before—before the perfect place had been found for the real planting of the standard and the giving of its folds to the air. No such happy spot had been marked, decidedly, at that period, to my inquiring eye, in consequence of which the emblazoned morsel (hoisted sooner or later by all of us, I think, somehow and somewhere) might have passed for the hour as a light extravagant bandanna rolled into the tight ball that fits it for hiding in the pocket. —Henry James, *Notes of a Son and Brother*

Blow up nominalizationsand noun trains
**Break apart these nominalizations and noun trains. If you don't know what the original
writers meant, guess.**
(1) "The high-yield portfolio write-off and mark-down losses announcement today reflects the continued deterioration of the high-yield portfolio and losses associated with selling certain bonds," the company said.

(2) The innovation history of our world-class fashion emporium includes the creation of the preppy look, all-wool worsted double-stretch fabric, and button-down collar shirt apparel.

(3) The evolution of a method for the embedment of module function objects into code designed to run on handheld computers has the exciting effect that we will see many more "smart" distance area cell phones, remote controls, and personal assistants.

(4) The network protocol analysis lists affect the detection extraction prevention sequence.

(5) The walkthrough code design review process includes the usability research standards recommendations

Watch out for ambiguous phrases a reader must puzzle over
Revise these choice ambiguities from job hunters.
(1) Responsible for ruining sales program for provincial grocery chain (Ontario).

(2) Familiar with Russian through curses in conversation.

(3) Deflected 5 close-up investigative reports for pubic television.

(4) Teamwork: ability to meet deadlines while maintaining composer.

(5) Management accomplishments: Overlooked department of 5.

(6) Responsible for handling money and staff.

(7) My teams oversubscribed their customers so they earned bonus options.

Surface the agent and action, so
users don't have to guess who does what
Make these sentences active.
(1) The original fruit stand was set up in 1925 by the Cappucino family. In 1945, the store in Greenwich Village was opened by Louis Cappucino, and gourmet foods were imported from around the world.

(2) If a UNIX system is being booted from another computer over a LAN, the operator should be assured that the LAN cables are correctly connected, terminated at each end with a 50 ohm terminator, but connected to computers by T-connectors, these being placed within the length of the cabling, not at the ends, and that the remote boot daemon is running on the source system.

(3) The data in the warehouse is planned to be subject-oriented, integrated, non-volatile, and time-variant. Topics such as customers, employees, vendors, products are to be defined as subject-oriented information. Integration is the pulling together of data from multiple systems, which may not be in agreement in defining terms. These

disagreements must be resolved by the operator. Whatever data is included in the warehouse must be time coded, so that studies can be run on historical (5- to 10-years-old) and current information. Generally, the last 90 days worth of transactions can be considered current, and earlier transactions must be summarized, because the volume is too great to store and access all of them; on the other hand, customer data can be preserved going back ten years. All the data in the warehouse is non-volatile, too, because it is a kind of snapshot of information in other databases, caught once a day, once a week, or once a month, and the warehouse itself is read-only.

Make a positive statement, so people understand right away—without having to unpack a nest of negatives

Make these sentences positive, rewriting freely.

(1) We're sorry, but you cannot re-establish your connection without signing off.

(2) That security hole is not alarmed, so your security installation team needs to correct that omission promptly, although, it goes without saying, without disrupting traffic.

(3) Our representatives do not stay in the office for long, and they do not use one system for long, so location does not prevent anyone from creating or requesting information. Universal networking does not mean each person learns more, because that person may not be able to swim through the torrents of information pouring in, while adding his or her buckets to the flow. In addition, no one will be able to tell which item is top priority, if they have too little time to read each article, so who knows which article to read first? This situation is the reverse of knowledge management, because we lack components that help create, organize, filter, and route information through the organization.

(4) Online Transaction Processing (OLTP) is not the same as Online Analytical Processing (OLAP), even though the terms are not very different, and they both use databases. OLTP handles thousands of transactions at once, going to the database to retrieve records, insert new ones, update old ones, and delete a few. But OLAP just analyzes that data. OLTP, then, is not a decision support system; and OLAP is not an operational support system. OLAP is not concerned with efficiencies of time, money, and resources, and OLTP is not concerned with improved value in decisions, service, sales, processing, and revenue flow. Without OLTP OLAP could not exist. But OLTP can exist without any OLAP.

Reduce scrolling

Rewrite to display the critical 80 words, dispatching the rest to other locations or out of sight, below, on the same page. (You can divide the material up).

Imagining the data space we encounter on the Internet is as difficult as envisioning a city we have never visited before. But as we go down certain routes, congregate around certain cafes, get involved in various chats, explore famous sites, we begin to acquire mental landmarks. We build a three-dimensional model of the information space, the way a visitor to a city gradually puts together various forays, making sense of them, beginning to see where they overlap, where the paths repeat, where you have to make up your mind to turn, or get stuck on some highway for another five miles. These maps we make have length, width, and depth—and an acute sense of the time involved on each trek. The maps we form resemble those made by city dwellers when the architect Kevin

Lynch asked them to draw the route they took to go from home to the office every day. Some people had survey knowledge: they constantly oriented themselves in regard to key regions (the Charles River, the bay) and landmarks like the John Hancock Building in Boston or the Eiffel Tower in Paris. They did not know any particular street that well, and may in fact have chosen different routes on different days, but they always knew where they were in relation to large bodies of water, and tall structures. Other people had route knowledge. They remembered key decision points. "At the McDonald's I have to turn left." In between decision points, these people had only blurred memories; but at the moment they were about to have to make a decision, or a turn, they could envision the exact storefronts and lay of the land of that local turf; in fact, these details acted as a trigger, signaling them to wake up and pay attention again, because they were about to have to make a choice. Those who knew the city best (knowing regions, landmarks, and paths intimately) tended to take that other knowledge for granted, and make decisions based on small, local landmarks.

Write a heading as an object you will reuse many times
Revise and re-order one set of headings. You may delete any items you suspect are duplicates. Please rewrite to make the items more meaningful to a consumer.

Electronic Devices to Catch a Thief
- Anti-theft devices
- Equipment to catch a thief
- Electronic guard dogs
- Spotting a shadow
- Locating metal
- Sensing heat gradients
- Noticing temporary duration brightness deltas
- Picking up a break in the circuit
- Detecting metal
- Electronic gizmos to warn you if a robber has entered your business
- Installing a fan to set up a background vibration
- Breaking an ultraviolet beam to change current in a photoelectric cell
- Detecting a change in light levels
- Detecting a change in heat patterns
- Picking up metal in a location that usually has no metal
- Detecting a change in pressure
- Detecting a change in capacitance
- Detecting a change in vibration
- Alerting the police over the phone lines
- Autodialing the police
- Sounding an alarm
- Running a surveillance camera

Network Security

- User rights
- User privileges
- User access options
- What a user can do with a file or directory
- The things a user can get hold of in your computer
- View, read, write privileges
- Right to view a file
- Right to read a file
- Right to write to a directory
- Right to overwrite a file
- Right to view contents of a directory
- Right to view and read, but not write to a directory
- Privilege to look inside a directory
- User ability to open a particular file
- User ability to assign rights to a file
- A user can set up privileges (or rights) for every one, or a group, or just oneself
- Setting security options on your own file
- Setting security options on your own directory
- Setting up a group account
- Defining a group's privileges as read-only or view-only for the whole system, a directory, or a file
- Defining a user as read-only or view-only for the whole system, a directory, or a file
- Defining a user's privileges for a particular file
- Regulating an individual user's access to a directory
- Regulating a group's access to a directory
- Defining user rights for a directory
- Specifying what a user can do with a file

Write each menu so it offers a meaningful structure

Reorganize one of these menus by dividing items into groups, sequencing those, and rewriting items to articulate your new structure.

Choosing the Paper for Your Sales Brochure

- Paper surface and texture
- Slickness
- Bendability, foldability
- Color
- Absorbability
- Toughness in standing up to mail
- Ability to print small type clearly
- Resemblance to papers we have used before
- Cost per 500 sheets
- Ease of printing (how much gets damaged)

Arguments in Favor of Purchase

- Recommending $100,000 purchase of equipment
- The budget
- The benefits
- The possible disadvantages
- How we will cope with any problems
- How the machinery works
- Where the machinery will go
- Changes we need to make in wiring
- Possible code violations and solutions
- Air conditioning upgrades needed
- Break-even date (when we'll start saving money)
- Labor-saving aspects
- Improved quality, thanks to this equipment
- Improved competitive position
- Unfamiliarity of equipment
- Training needed to familiarize workers with gear
- Replacement cycle
- How to speed up replacements
- Why the cycle is slow now
- Vendor promises, on replacement cycle
- Quality of this equipment
- Mean time between failure for this equipment
- Speed of this equipment
- Maintainability of this equipment

Offer multiple routes to the same information

Organize the headings for these weather pages on your local newspaper's site. Group, sequence, and, if needed, rewrite the headings.

24-hour outlook
Airport conditions
Averages
Cloud watching
Fixing your roof
Gardening tips
Humidity and barometric pressure
Learning about the weather
Local mini-climates
National weather patterns
Next 7 days
Outdoor recreation
Pollen alerts

Rainfall
Records
Respiratory distress warnings
Seasonal predictions
Severe weather warnings
Ski reports
Surf predictions
Water temperature
Weather in the news
Weather maps
Xeriscaping advice

Write and display several levels at once

Sketch an interface, and rewrite menu items as needed, so that you can show several levels at once.

You have a 15,000-page Web site to launch next year, for Total World Conglomerate, Inc., and you have to prepare an interface for the menu system.

- In the current table of contents, there are more than 10 levels.
- You would like to be able to show people where they are, no matter how deep they have plunged into the site. So you decide to show the menu choices a user has already made, to indicate the user's location within the hierarchy.
- You want to develop a consistent way of displaying menu choices now available to the user.
- You anticipate users will be looking at 19-inch PC screens.
- The interface you develop for the Web site will also be used for a one gig cartridge to be distributed to corporate kiosks around the world.

Goals:

- Sketch the look and feel of the menu system.
- Be as consistent as you can, within the constraints.
- Decide for or against a graphical menu at a high level.
- Ensure that the user knows what choices are now available.
- Ensure that the user knows where he or she is, right now.

Total World Conglomerate (TWC)
Welcome to our TWC Web Site
Annual Report for TWC, Inc.
CEO Bud Buddigan
CFO Al Accountero
CIO Liz Data
Board Officers
Email Form
Corporate Entities

Military Industrial Conglomerate
Agricultural Conglomerate
Petroleum Conglomerate
Chemicals Conglomerate
Network Conglomerate
Satellite Conglomerate
Prison Conglomerate
Education Conglomerate
Publishing Conglomerate
Entertainment Conglomerate
Systems Conglomerate
    Design Systems
    Computer-Assisted Manufacturing Systems
    Just-in-Time Delivery Systems
    Communication Systems
    Consulting Group
    Financial Systems
    Automotive Systems
    Aerospace Systems
    Battle Systems
    Refinery Systems
    Human Control Systems
    Articulation Systems
    Point-of-Sale Systems
    Warehousing Systems
        Introducing the Warehouse System Groups
        Warehouse Physical Plant
        Warehouse Liaison
        Warehouse Maintenance
        Warehouse Management
        Warehouse Update
        Warehouse Database
            I. Executive Overview of the Warehouse Database
            II. Getting Started with the Warehouse Database
                Installing Your Demonstration Database
                Launching Your Demonstration Database
                Working with Menus, Windows, and Forms
                Working with Records

When users arrive at the target, make success obvious

Experiment: Go to any site that carries current news items, such as http://aol.com, http://www.lycos.com, http://www. msnbc.com, and test a dozen links.

- How many times does the linktext match the title?
- How often does the heading on the target page echo the theme of the linktext?
- How often is the introductory sentence relevant?
- If there is art on the page, how often does any word of the caption echo the linktext?

Describe your own experience of clicking a link and confirming that you have—or have not—arrived at the page you expected.

- How do you feel when everything matches?
- How do you feel when you find a different title or heading when you arrive?
- How disorienting do you find the disparity, if any?
- What else could you suggest to the writers on the site, or the designers, to help users confirm arrival on the target pages?

Confirm the location by showing the position of this information object in the hierarchy

Create and describe an interface that uses text to show where a user is in the hierarchy.

Your Corporate Overview page features an exciting graphic that takes only 2 minutes to download at 56.6. In the image map are four menu items: Speeches, Photos, Executive Profiles, and Feedback. At the same level as the Corporate Overview are Investor Info, Stock Info, Financial Info, Contact Info, Events and Presentation, Feedback (yes, again), Services, Help, Search, Write to Us. All of these are components of the section called For Investors.

At the same level as For Investors, on the home page, you see Newsroom, Welcome, Directories, International, For Investors, Inside our Labs, Employment, Services, Help, Search, Write to Us.

To get to a list of recent speeches by the CFO, I start at the home page and choose For Investors; then I choose Corporate Overview; then I choose Speeches, and get the list of talks.