Legal Writing for the Rewired Brain

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I. Introduction: reading is changing.

Something big has happened. Our brains have been rewired.

Computers bring us more information, faster. But researchers have discovered that reading from computer screens has changed the way we read. It increases the demands for our attention. It causes us to skim instead of reading line by line. It reduces our concentration and focus. And the more we read on computer screens, the more difficult it becomes to read long texts on paper.

Consider how popular media has changed. Webpage text, which is designed for screen readers, looks very different from text in books and newspapers from 20 years ago. Screen readers prefer something different. Paragraphs are shorter. Headings are frequent. Structure is more visible. Text is often supplemented by visuals, such as photos and charts.

These changing reading habits are a particular concern to lawyers, who must convey complex information – often to clients, judges and law clerks with little knowledge of the particular subject.

Although reading has changed, legal writing largely has not. Most lawyers write in a tradition-bound style that evolved to meet the needs of paper readers, not screen readers. Most law schools still teach that style – long text, long paragraphs, and complex, lengthy development of arguments.

If lawyers want to communicate to the rewired reader, they are going to have to re-think legal writing. This paper argues that the best place to start is lessons learned from research by website designers.

II. The legal world is going paperless.

The environment in which lawyers read and work has changed dramatically in the last 20 years. Consider the differences between legal offices 20 years ago versus legal offices of today.

A. 30 years ago, almost all reading was from paper.

In the late 1980s, few lawyers or judges used computers at their desks. Lawyers communicated by phone and letters. They drafted by hand, or more often, dictation. They read everything – letters, contracts, legal research – on paper or in books.

Many law offices had computers. But they were primarily tools used by staff for word processing and accounting. They were not tools that lawyers used much for information gathering and communication. Even when many firms began to use proprietary databases like Lexis and Westlaw in the late 1980s, most lawyers did not gather information on the Internet until the mid-1990s.

Until the last two decades, lawyers and judges did very little reading onscreen. Documents were kept in paper files. And lawyers read them on paper.

B. Today: the transition to screen reading.

Today computers are an integral part of our office for communication, research, and record management. But are lawyers, clients, and judges using computers much to *read*? Or do they gather information on computers, but print and read it on paper? I have been asking those questions through informal, unscientific polls for the last ten years. This is what I have found:

- **Courts.** Fifteen years ago, most judges I asked were reading legal documents exclusively on paper. Most courts were still managing their files, and court filings, with paper. Yet since then, most federal and state courts in which I practice have switched to e-filing and electronic file management. In courts that have made the switch, judges are far more likely to access and read documents on a screen rather than paper. A few judges still prefer paper over screens as their primary reading tool. But their number shrinks every year.

- **Lawyers**. Roughly 90 percent of the lawyers I have questioned have responded that they now spend more time reading from screens than paper. That percentage tends to be even higher among any lawyers or law students under 40.

- **Business clients**. Most in-house counsel and corporate managers are much more likely to read work documents on a screen than on paper. The reason is that most corporate offices now use electronic document management rather than paper files. Paper is too expensive for an efficient office – less because of printing costs, than because of the costs of managing paper files. A few business clients may print some draft documents for study or editing. But reading hard copies in an office is becoming rare.

This switch from paper reading to screen reading appears to have occurred around the turn of the century. Although PCs were first introduced into offices between 1980 and 2000, during the same period, the use of paper doubled.[1] This happened because printing technology made it cheaper to print, and computers increased the amount of information available to be printed.[2]

It is only since 2000 that the paper usage per white-collar American worker has begun to decline.[3] After decades of working with computers, we are finally becoming accustomed to reading on screens.

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[1] *Technological Comebacks: Not Dead, Just Resting*, THE ECONOMIST (Oct. 9, 2008), http://www.economist.com/ (search "The Economist" for "technological comebacks"; then follow hyperlink to "Technological Comebacks: Not Dead, Just Resting")

[2] *Id*.

[3] *Id*.

C. 5 key features of the screen environment are changing the way we read.

At first, it might not make sense that reading on a screen would be different. The words of a text on a screen and the words on the paper are the same. But "[r]eading a book is not perfectly equivalent to reading a screen, no matter what the text."[4] The difference is the reading environment of the computer – and the experience it creates for the reader. This difference can be summed up in the five key differences between paper and a computer environment:

1 - The Internet is a constant source of information, entertainment, and distraction.

When lawyers read papers at their desk, there was a limited amount of information immediately available to them. They had access to their papers, files, books, and perhaps a stack of bar journals.

Today, the amount of information available in an office has increased by orders of magnitude. As Mitch Kapor, the founder of Lotus once said, "Getting information off the Internet is like taking a drink from a fire hydrant." When we sit at a computer or carry a smart phone, we have a limitless supply of information, nearly as big as the collected body of human knowledge. All of that information is ever-present, a ready resource – and source of distraction.

2 - Search engines cause us to expect information quickly, without thought.

Once, readers expected reading a book to be a process of discovery in which it would take time to find information. Today, search engines like Google and Westlaw cause readers to expect to get information quickly. Because searches are easy to formulate, they require very little thinking to find information.[5]

Readers now expect the same qualities of documents. When they approach a document, they expect to locate the necessary information in it as quickly and easily as they locate information through a Google search.

3 - Screens are difficult to read and encourage skimming.

Computer screens are more difficult to read than paper. When we read word-for-word, we read 10 to 30 percent more slowly on screens than paper.[6]

What makes a screen harder to read? Technology writer John Freeman suggests that the difference has to do with light.[7] Before computers, humans evolved to see the world by reflected

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[4] ALBERTO MANGUEL, THE LIBRARY AT NIGHT 79 (2006).

[5] *See* Nicholas Carr, *Is Google Making Us Stupid?*, The Atlantic (July/August 2008), *available at* http://www.theatlantic.com/doc/200807/google.

[6] SRI H. KURNIAWAN & PANAYIOTIS ZAPHIRIS, READING ONLINE OR ON PAPER: WHICH IS FASTER? (Aug. 2001), http://users.soe.ucsc.edu/~srikur/files/HCII_reading.pdf.

[7] JOHN FREEMAN, THE TYRANNY OF E-MAIL: THE FOUR-THOUSAND-YEAR JOURNEY TO YOUR INBOX 15 (2009).

light. Our eyes are not designed to look directly at a light source, such as the sun. We see most of the world using reflected light. The exception is when we look into an electronic device. A computer screen shines light directly into our eyes.[8] It causes dried eyes, an increased blink rate, and headaches.[9]

It is no surprise that readers compensate for the more difficult screen environment by skimming text to gather information more quickly.

4 - Multiple Windows screens promote multitasking.

The windows-type operating system was a technological advance over DOS because it allowed users to run more than one program at one time. Today, almost all computer devices are capable of multitasking. And they are turning us into multitaskers too as we jump from one window to another.

Yet the efficiency benefits of multitasking may come with a cost. Multiple windows compete for our attention. They easily disrupt our focus and concentration.

Multitaskers are capable of rote, mechanical tasks, but their performance declines in higher areas of thought, such as memory and learning.[10] A Stanford University study found that people regularly bombarded with several streams of electronic information do not pay attention as well, control their memory, or switch between jobs as well as those who complete one task at a time.[11] Multitasking actually slows our thinking because it "forces us to chop competing tasks into pieces, set them in different piles, then hunt for the pile we're interested in, pick up its pieces, review the rules for putting the pieces back together, and then attempt to do so, often quite awkwardly."[12]

The distractions of a screen-reading environment are a challenge for legal writers. Our readers are likely viewing the legal document that we have written in one window, while they glance at other windows with e-mails, other documents, and news from the Internet. With so many distractions for our readers, it is more challenging to communicate complex legal information to the screen reader.

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[8] *Id.*

[9] *Id.*

[10] *Id.* at 141.

[11] Adam Gorlick, *Media Multitaskers Pay Mental Price, Stanford Study Shows*, Stanford *University News* (Aug. 24, 2009), http://news.stanford.edu/ (search Stanford News for "Gorlick multitaskers"; then follow hyperlink for "Media Multitaskers Pay Mental Price").

[12] Walter Kirn, *The Autumn of the Multitaskers*, The Atlantic (November 2007), *available at* http://www.theatlantic.com/ (search for "autumn multitaskers"; then follow hyperlink to "The Autumn of the Multitaskers").

5 - E-mail results in fast communication and frequent distractions.

E-mail is largely how lawyers and businesspeople communicate. In 2009, the average corporate worker received 200 e-mail messages *each day*.[13] Workers spend more than 40 percent of their work day sending and receiving e-mails.[14] And the number of e-mails that we all receive seems to go up with each passing month.

E-mails not only take up much of our time. They are a constant interruption throughout the day. E-mail programs are designed to interrupt our thought with notification sounds and pop-ups.

Worse, most lawyers and businesspeople bring the e-mail distraction with them everywhere. Mobile devices like the iPhone have become a required tool among lawyers. We check for messages at night, when we wake up in the morning, over the weekend, and even when on vacation.

The result? Our readers "work in the most distraction-prone workplace in the history of mankind."[15] We cannot expect them to have the same focus and sustained attention that lawyers and judges had 30 years ago.

III. The science of how screens are changing reading.

Since the Gutenberg Press made printed text widely available, paper has been our primary tool for *study*. The press made more books available, which resulted in the solitary study of books – a process technology writer Nicholas Carr referred to as "deep reading."[16]

In a 2008 article in *The Atlantic*, Carr argued that reading on his computer screen was changing the way he read. As he found himself reading more on computer screens and less on paper, something happened to his mind: "I have had an uncomfortable sense that someone, or something, has been tinkering with my brain, remapping the neural circuitry, reprogramming the memory...."[17] Carr also found he was losing the ability to focus and concentrate: "What the Net seems to be doing is chipping away at my capacity for concentration and contemplation."[18]

Since Carr's 2008 article, researchers have been confirming Carr's intuitions. Screens are changing the way we read in measurable ways.

A. Screen readers read more text.

The great advantage of reading on screens is that so much more information is accessible much more quickly. With a few clicks we can access a mass of information. This is, of course, the reason that reading on screens is so popular. We can get to more information more quickly.

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[13] Freeman, *supra* page 3, at 4.
[14] *Id*. at 5.
[15] Freeman, *supra* page 4, at 140.
[16] Carr, *supra* page 3.
[17] Carr, *supra* page 3.
[18] *Id*.

The predictable result is that we are reading more text—much more text. According to one study, the amount people read in the late 2000s had *tripled* since 1980.[19] And "as we jam more and more words into our heads, how we read those words has changed in a fundamental way."[20]

B. Screen readers do not read; they skim.

For most of us, our image of a person reading a book is an image of a person studying. But screen reading looks much different. It is characterized by more time spent "browsing and scanning, keyword spotting, one-time reading, non-linear reading, and reading more selectively."[21]

To sum up typical screen reading in a word, it is *skimming*. Screen readers do not read word-by-word, line-by-line. They move through a text rapidly, trying to gather information without reading the entire text.

This phenomenon is demonstrated by eye-tracking studies. These studies use video cameras to track eye movements of readers as they read on computers.

Eye-tracking studies allow researchers to see which parts of the page get the most reader attention on the page. What they have found repeatedly is that screen readers skim the page in an F-shaped pattern.[22] Most readers first read a few lines across the top of the page. Then they read headings, or first sentences, after a break in a text further down the page. Finally, readers' eyes skim down the left side of the text in a vertical movement. [23]

In the following image, the red areas are read by the most readers, yellow areas by many, blue by a few, and grey areas by none:

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[19] Annie Sneed, *Everything Science Knows About Reading On Screens*, Fast Company, July 8, 2015, *available at* http://www.fastcodesign.com/3048297/evidence/everything-science-knows-about-reading-on-screens.

[20] *Id.*

[21] *Id.*

[22] Jacob Nielsen, *F-Shaped Pattern for Reading Web Content*, JAKOB NIELSEN'S ALERTBOX, April 17, 2006, http://www.useit.com/alertbox/reading_pattern.html.

[23] *Id.*

 [24]

The F-pattern suggests that screen readers are more likely to:

- **Look for headings and summaries** of content;
- **Read the first paragraph** of a text more thoroughly than the rest of the text;
- **Read the first sentence** of a paragraph, but skim the rest of the paragraph; and
- **Look for structural cues** down the left side of the page. [25]

Another lesson of the F-pattern is that screen readers usually do not read thoroughly. In the study, almost none of the readers read all of the words on the screen. When words are located toward the end of a paragraph, further down the page, or further to the right, they are less likely to be read.[26]

[24] *Id.*
[25] *See id.*
[26] *See id.*

This switch to skimming results from the nature of the computer reading environment. Computer readers are in a hurry.[27] Readers have a lot of information available through the Internet, and not enough time to read it all. Skimming is not lazy. It is a necessary adaptation to handle the information explosion and the demands of screen reading.

C. Screen readers have less attention want information quickly.

"Web users are impatient and insist on instant gratification."[28] The reason for this impatience is simple. Life is too short and the Internet gives us too much to read. A legal document may find it difficult to compete with the Internet for a readers' attention.

Research suggests that, when people read onscreen rather than on paper, "sustained attention seems to decline."[29] Part of this may be due to computer environments with multiple programs, texts, and screens available at one time. Using "multipurpose" screens—say for email, reading briefs, researching, and sending texts—reduce concentration. [30]

Screen-reader habits such as skimming are reflections of readers' impatience and reduced ability to concentrate. Readers want information quickly and easily. Readers become frustrated when a text slows their reading speed, or requires them to think longer than is necessary.

Readers' impatience creates another challenge for legal writers. A long and complex legal document may take hours to read and fully absorb. That is time many of today's readers do not have. The drafter must enable impatient readers to get the point of the document in a matter of minutes. Impatient readers may not spend much more time than that.

D. Screen readers have more difficulty navigating a long text.

A number of studies also suggests that long texts are easier to navigate on paper than onscreen because paper is tactile, not just visual. As one researcher said, "The implicit feel of where you are in a physical book turns out to be more important than we realized."[31] The physical sensation of paper helps a reader map and remember the text. "When reading a paper book, one can feel the paper and ink and smooth or fold a page with one's fingers; the pages make a distinctive sound when turned; and underlining or highlighting a sentence with ink permanently alters the paper's chemistry." [32]

Why would these physical qualities of paper matter? Some researchers have concluded that qualities of words on a physical page help readers remember their location and content better. The

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[27] STEVE KRUG, DON'T MAKE ME THINK, 22 (2d ed., 2006).

[28] Vitaly Friedman, *10 Principles of Effective Web Design*, Smashing Magazine, Jan. 31, 2008, http://www.smashingmagazine.com/ (search "effective web design"; then follow hyperlink under "10 Principles of Effective Web Design").

[29] Sneed, *supra* p. 6.

[30] Ferris Jabr, *The Reading Brain in the Digital Age: The Science of Paper versus Screens*, Scientific American, Apr. 11, 2013, *available at* http://www.scientificamerican.com/article/reading-paper-screens/.

[31] *Id*.

[32] *Id*.

four corners of a page "make it easier to form a coherent mental map of the text."[33] For instance, one study comparing people who read a mystery story in a pocket print group and another group who read on a Kindle found that "people who read on paper were much better at reconstructing the plot of the story."[34] The researcher who conducted the study hypothesized that the tactile feedback of paper may help people process certain information when they read.

At least with current reading technology, it is harder for most people to locate information in a long text on screen rather than on paper. Using a screen limits the way people navigate a text.[35] For instance, it is more difficult on a screen to flip pages, remember the location of particular information, and to sense whether you are closer to the beginning or end of the book.

E. Screen readering is more exhausting.

Some research has suggested that "people comprehend less when they read on a screen because screen-based reading is more physically and mentally taxing than reading on paper."[36] Screen reading may be more taxing on the eyes because most screens shine light into the eyes, as opposed to paper reading which relies on reflected light off the page. The American Optometric Association, for instance, recognizes a condition called "computer vision syndrome."[37]

In addition the screen reader's faster, more selective skimming may place higher demands on cognitive resources and may impair concentration and memory as a result. One Swedish study, for instance, found that reading comprehension was lower for screen readers than paper readers and that screen readers reported higher levels of stress and tiredness.[38] Similarly, another test found that readers who had to scroll through continuous text did not do as well on attention and working-memory tests as readers who flipped pages.[39] The researcher concluded that scrolling drains more mental resources than turning a page because scrolling requires the reader to focus on the text and how the reader is moving it.[40]

F. Screen readers do not want to work hard get information.

Steve Krug's landmark book on web design is named for the key principle for writing to the new reader: *Don't Make Me Think.*[41] Krug explains that when a user looks at a web page:

> [I]t should be self-evident. Obvious. Self-explanatory. I should be able to "get it" – what it is and how to use it – without expending any effort thinking about it.[42]

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[33] *Id.*
[34] Sneed, *supra* p. 6.
[35] Jabr, *supra* p. 8.
[36] *Id.*
[37] *Id.*
[38] *Id.*
[39] *Id.*
[40] *Id.*
[41] *See* Krug, *supra* p. 8.
[42] *Id.* at 11

The point is not that readers are unintelligent. Writers should never treat readers as incapable of thinking. Rather, they are busy and impatient. They want to get the point as quickly as possible with the least amount of effort. Readers don't want to think *more* than necessary.

This principle applies to legal writing just as it applies to web design. The goal is to communicate to readers who do not want to spend much time or mental effort deciphering.

Screen readers are not the same as deep readers. They do not want to be immersed in our writing. They do not want to spend hours studying over a legal document to absorb it fully.

New readers want the point. They want it quickly. And they do not want to have to work hard to get it.

IV. Usability research can help legal writers communicate with the rewired reader.

The bad news is that our writing style must change. To be able to communicate with rewired readers, lawyers must adapt to the new reading environment by changing the way they write legal documents.

The good news is we have a large body of research about how to write for the new style of reading. This research comes from the school of web design known as **usability**.

A. Why usability helps legal writers.

Usability is the study of how to make web sites easy to read. Usability can mean success or failure for a billion-dollar web company such as Amazon or Google. For this reason, the field of usability has performed more research than ever before about the way people read.

Usability tools are also useful for designing legal documents. They can make a document easier to read. And they make it easier to get the point quickly. These tools also help readers focus on the most important parts of a document, so they understand the most important information.

B. 6 usability tools for legal writers.

The following 6 usability principles are essential in writing to rewired readers. Although designed for screen readers, most paper readers also appreciate them – even if the paper reader does not need them to the same degree. They make any document easier to use because they help the reader know where to expect information.

1. Use visible structure.

The F-pattern shows that screen readers need structure to process information rapidly. One curious feature of the F-pattern is that readers appear to spend as much time looking up and down the page as they do reading lines of text across the page from left to right. This demonstrates that screen readers spend much of their reading time looking for signs of structure.

Web designers have learned that visible structure enables rapid information gathering. For legal writers, visible structure is crucial for our readers to understand our primary arguments and to see quickly the structure of an argument's logic. Useful structural tools include:

- **Frequent headings**. Particularly in an argument, headings are very useful to give the reader the overall logical structure. Because a tablet screen is smaller, tablet readers need frequent headings to remind them of their place in the argument.

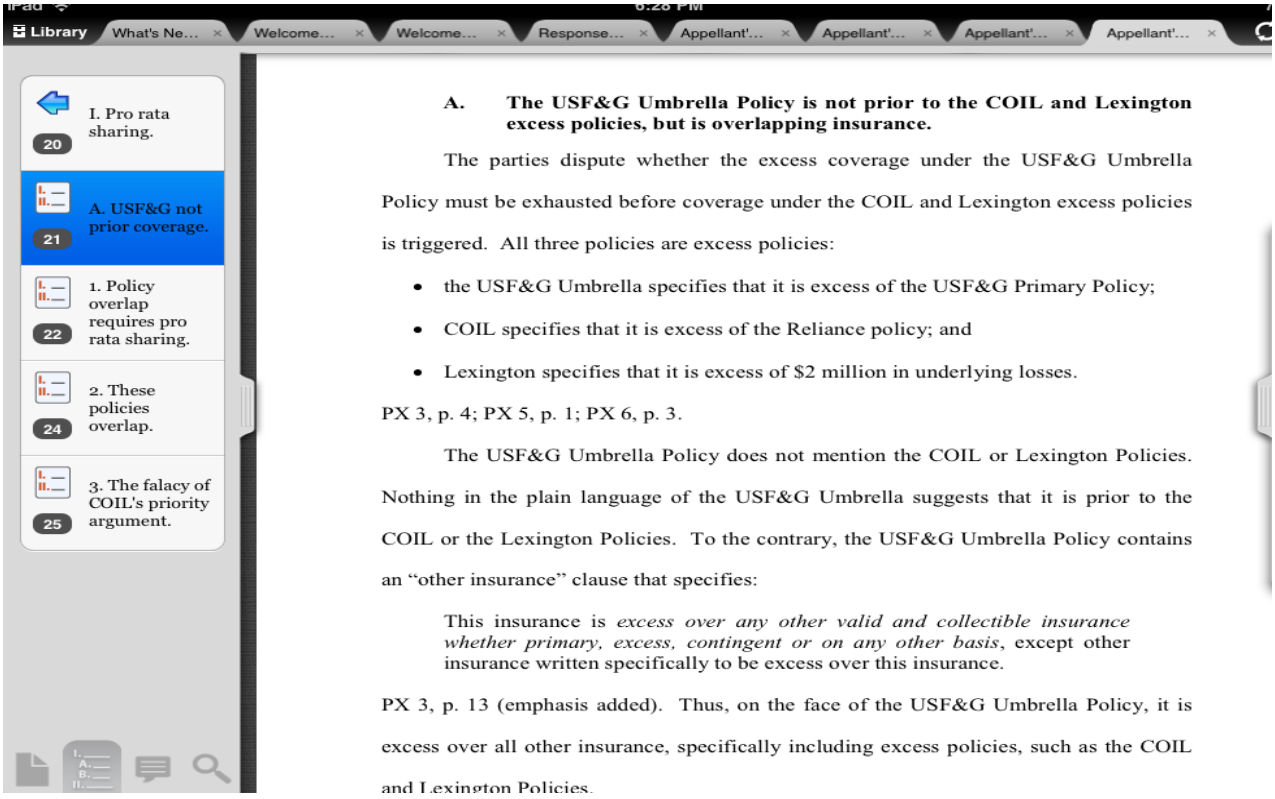
- **Outlines**. Outlines help show the overall structure of the argument.

- **Topic sentences**. The F-pattern shows that screen readers are more likely to read the first sentence of paragraphs. This lesson is also true of iPad users, who tend to be rapid information gatherers. A useful topic sentence is one that persuasively summarizes the argument of the paragraph.

- **Lists**. Lists are useful to delineate separate arguments or support. Lists show structure-oriented readers how many points support an argument and where each new point begins.

- **Bullets**. Bullets points are similar to lists. They are useful to delineate examples or support where the number of points is not important.

The following section of an appellate brief, taken from an iPad screen, shows how a legal document can give the reader structural clues with an outline in the bookmark pane on the left side of the screen, headings, and bullet points:



2. Use summaries.

Legal documents have long used summaries. Most appellate courts require them. Yet summaries are even more important in the age of the screen reader.

Summaries can be the best tool to help a reader get the point quickly. If your best argument does not appear until the end of the document, screen readers are likely to miss it because they read less carefully as they progress through a long document.

Summaries also help both screen and paper readers process information. A summary gives the big picture—the main points of a document. When readers first see the main points, they can more easily absorb the detailed information that supports them.

An effective summary of a legal document does three things:

(1) provides a roadmap of the document;

(2) gives the most persuasive details; and

(3) does it quickly.

The roadmap tells readers what the document is about. It provides the framework that allows readers to process the details of the document.

The problem with most legal summaries is that they stop with the roadmap. They do not persuade because they are too general, too conclusory. In the past, lawyers could get away with waiting until the body of their argument to explain their best details, such as the key facts or most persuasive legal arguments. But when a judge or law clerk may not carefully read the entire text, it is critical to include the most important points in the location they are most likely to read it.

To persuade readers, a summary should provide the two or three specific, persuasive reasons that support the main position, even if the legal and factual support will require substantial development later in the body of the document. If possible, these arguments should include the most important specific facts and legal points in the argument, rather than just general concepts or conclusions.

Summaries also should be short. I try to keep summaries for 50-page documents to less than one page. And I summarize memorandum or long emails in no more than a short paragraph.

3. Use white space.

White space is any blank part of a page.[43] Usability studies have demonstrated that white space has a great effect on how much a user enjoys reading a page.[44] Compare successful Internet pages to a typical 20th century book. In most instances, the website will have substantial white space; whereas, the book page will be filled with text.

It makes sense that internet readers need more white space. White space gives our eyes and brain a rest. It is a pause. And screen readers, processing large quantity of text and information, need that pause.

Writing Professor George Gopen explains that readers must summon certain a certain amount of energy to begin to read any sentence or paragraph.[45] Gopen compares this energy to taking in a breath.[46] This helps explain why unnecessarily long or complex sentences and paragraphs are hard to read. The brain needs a rest between thoughts. If the sentence or paragraph requires too much work to read, readers run out of breath.

This problem is amplified in a computer reading environment. Reading from a screen is difficult – more difficult than reading from paper. Readers prefer even more frequent breaks between paragraphs than they do when reading from paper.

4. Chunk complex information.

Another tool for helping readers is chunking. Chunking means presenting information in short, easy-to-digest segments or chunks. We chunk a text with multiple parts by breaking it into visible parts, such as separate sentences, separate numbered points, or separate parts of a chart. The more parts an idea has—and the more complex its structure is—the more important it is to present it in distinct, digestible parts, rather than as a stream of text.

Consider a phone number. Most readers are much less likely to remember 7135232358 than: 713-523-2358.

Or consider the definition of negligence. Most readers are much less likely to remember:

> The elements of negligence are the existence of a legal duty, a breach of that duty, and damages that proximately resulted from that breach.

than:

> The elements of negligence are:

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[43] Robert Hoekman, Jr., *Designing the Obvious: A Common Sense Approach to Web Application Design*, 214 (2007).

[44] *Id.*

[45] George D. Gopen, *Expectations: Teaching Writing from the Reader's Perspective* 19 (2004).

[46] *Id.*

(1) the existence of a legal duty,
(2) a breach of that duty, and
(3) damages
(4) that proximately resulted from that breach.

Our brains find it much easier to process multiple bits of information when they are broken into these distinct chunks.

5. Use visuals

Trial lawyers have long understood the importance of visual tools in persuading juries. Visuals can help readers understand some kinds of information in ways that words cannot.

Strangely, lawyers seem reluctant to use visuals in written documents. In 2007 I surveyed briefs filed with the Texas Supreme Court during a six month period. Only five percent of the briefs used any visuals – mostly charts – and none used photos. The vast majority of brief writers had drafted their entire arguments using only words. Visuals are equally rare in judicial opinions

What explains this hesitance to use visual tools in legal documents? Perhaps the answer is old habits. Lawyers did not have the technology to insert images into documents until fairly recently. Because visuals were for many years difficult to incorporate into a document, lawyers and judges developed a habit of *writing* arguments rather than *showing* arguments.

Using visuals in legal documents is easier than most lawyers and judges think. It can be as simple as cutting and pasting. It is possible to insert relevant diagrams and even photos into the text of a legal document. Programs also make it easy to create charts or graphs to explain complex legal rules, case law holdings, facts, and data.

For instance, in a prisoner-rights case regarding the forcible shearing of dreadlocks, the well-known Seventh Circuit Judge Richard Posner used a photograph to demonstrate that "[d]readlocks can attain a formidable length and density."[47] To illustrate this point, Judge Posner included this iconic photo of Bob Marley in the opinion:

[47] *Grayson v. Schuler*, 666 F.3d 450, 452 (7th Cir. 2012).

 [48]

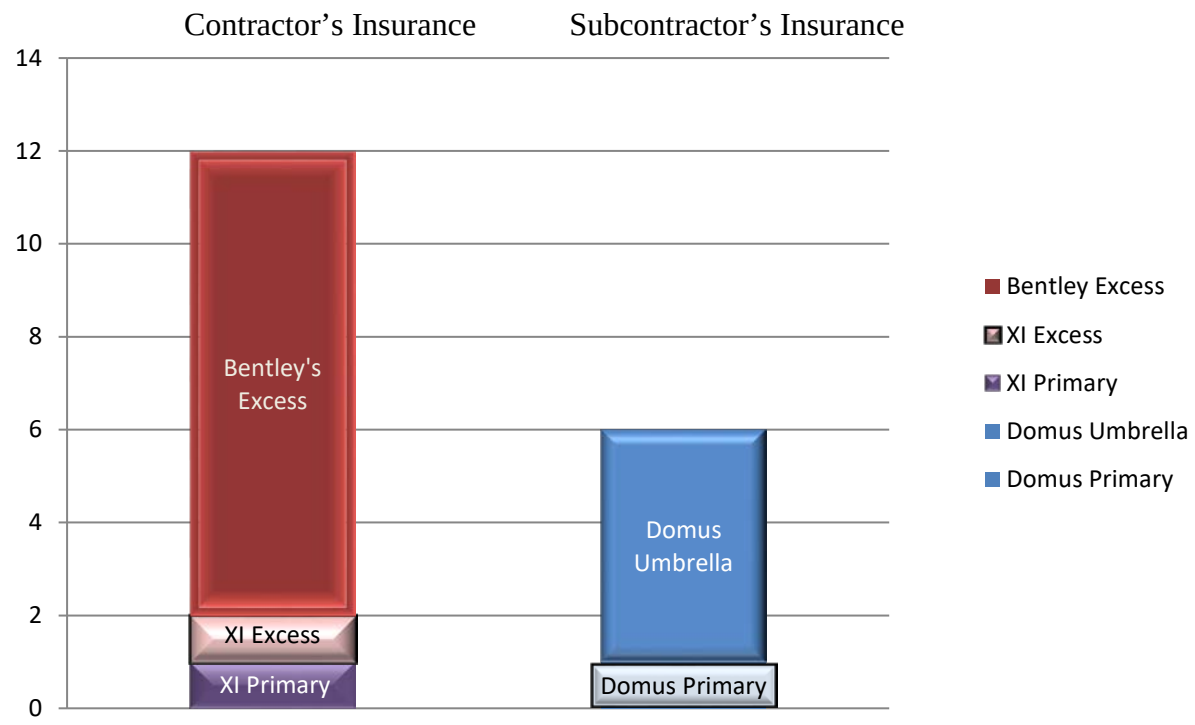
With this photo Judge Posner made his rhetorical point much more clearly than he could with words.

Visuals also help can readers comprehend complex information. For instance, I recently wrote a brief trying to explain the structure of layers of insurance policies that should be applied to pay for the settlement of an injury claim. When the explanation was in words only, it was quite confusing:

> The Contractor's tower of insurance included three policies. The first is the XI Primary Policy, which required Contractor to pay a self-insured retention for the first $500,000 in losses. After the $500,000 self-insured retention, the XI Primary Policy provided $500,000 in coverage, but it also had a $500,000 deductible. The second was the XI Excess Policy, which provided $1 million of excess coverage. This coverage was for losses in excess of the XI Primary Policy, and it followed the terms and conditions of the Primary Policy. The third is the Bentley Excess Policy, which provided $10 million of excess coverage. This coverage was not for losses in excess of any particular underlying policy, but instead was excess of the underlying amount of $2 million. The Subcontractor had two policies with Domus, a $1 million primary policy and a $5 million umbrella policy.

This complex structure is much more easily explained with a visual:

[48] *Id.*



Visuals are common on the Internet. They often communicate information more quickly, and with less work for the reader, than the same information in paragraph form.

6. Make it simple.

One of the best lessons from Internet usability is the success of the most widely used web page ever – Google. It dominates it the search engine market.

The key to Google's success is simplicity. Google's homepage has less than 25 words. No sentences. Most of the screen is white. Users find any information they want by typing a few words into a box and pressing "Search."

The person responsible for keeping Google's home page simple for many years was Marissa Mayer. She explained why Google's home page is so effective:

> Google has the functionality of a really complicated Swiss Army knife, but the home page is our way of approaching it closed. It's simple, it's elegant, you can slip it in your pocket, but its got the great doodad when you need it. A lot of our competitors are like a Swiss Army knife open – and that can be intimidating and occasionally harmful.[49]

To make legal documents more useful to our readers, they should be designed with the same goal as Google's design. A motion may address a complex subject. It may need to anticipate a

[49] Linda Tischler, *The Beauty of Simplicity*, Fast Company, Nov. 1, 2005, *available at* http://www.fastcompany.com/magazine/100/beauty-of-simplicity.html.

number of different scenarios. And it may have to be long. But to make it easy to use, it must be easy for rewired readers to approach, without requiring too much thought about how to find information in the document.

These are a few suggestions for making a document simpler:

•**Follow conventions.** For instance, most legal readers assume a memo will contain the traditional sections: the "to" and "from" addresses at the top of the page, the issue, the short answer, and the discussion. Satisfy readers' expectations by following the conventions.

•**Use parallel structures**. For instance, when a series of sentences repeats the same words, readers can follow the structure more easily of those words appear in the same location in each sentence.

•**Avoid unusual fonts or fancy formatting**. They only distract your readers.

•**Use ordinary capitalization**. Sentences are harder to read when a writer uses all caps or capitalizes the first letter of every word.

•**Use simple sentence structure**. A long sentence with a simple structure is harder to read than a short sentence with an easy structure.

•**Avoid unnecessary words**. When readers have to read unnecessary words, they resent having to work harder to get your point.

A simple document requires less thought to use. It allows readers to focus on the core of message of the document. And as a result, a simple document can be much more useful.

Conclusion

There is room for debate about whether technology's effect on reading is beneficial or harmful to the law. On one hand, lawyers have long valued the act of *studying* law. That is why most U.S. state bar associations require several years of legal study before an attorney may be licensed. Technology is discouraging study at the same time that it encourages rapid information gathering. Because we are observing this transition as it happens, the effect of technologies on reading may appear disturbing.

On the other hand, rapid information gathering is a necessary adaptation to this new rapid, information-rich environment. Lawyers and judges are knowledge professionals. By using electronic research, communication, and document management, lawyers and courts can gather more information in less time.

Whether these changes are beneficial or harmful, the reality for legal writers is that the reading habits of our audience are changing. To communicate and persuade, we must be able to understand how our audience is reading and adapt to make our writing usable for all styles of reading.