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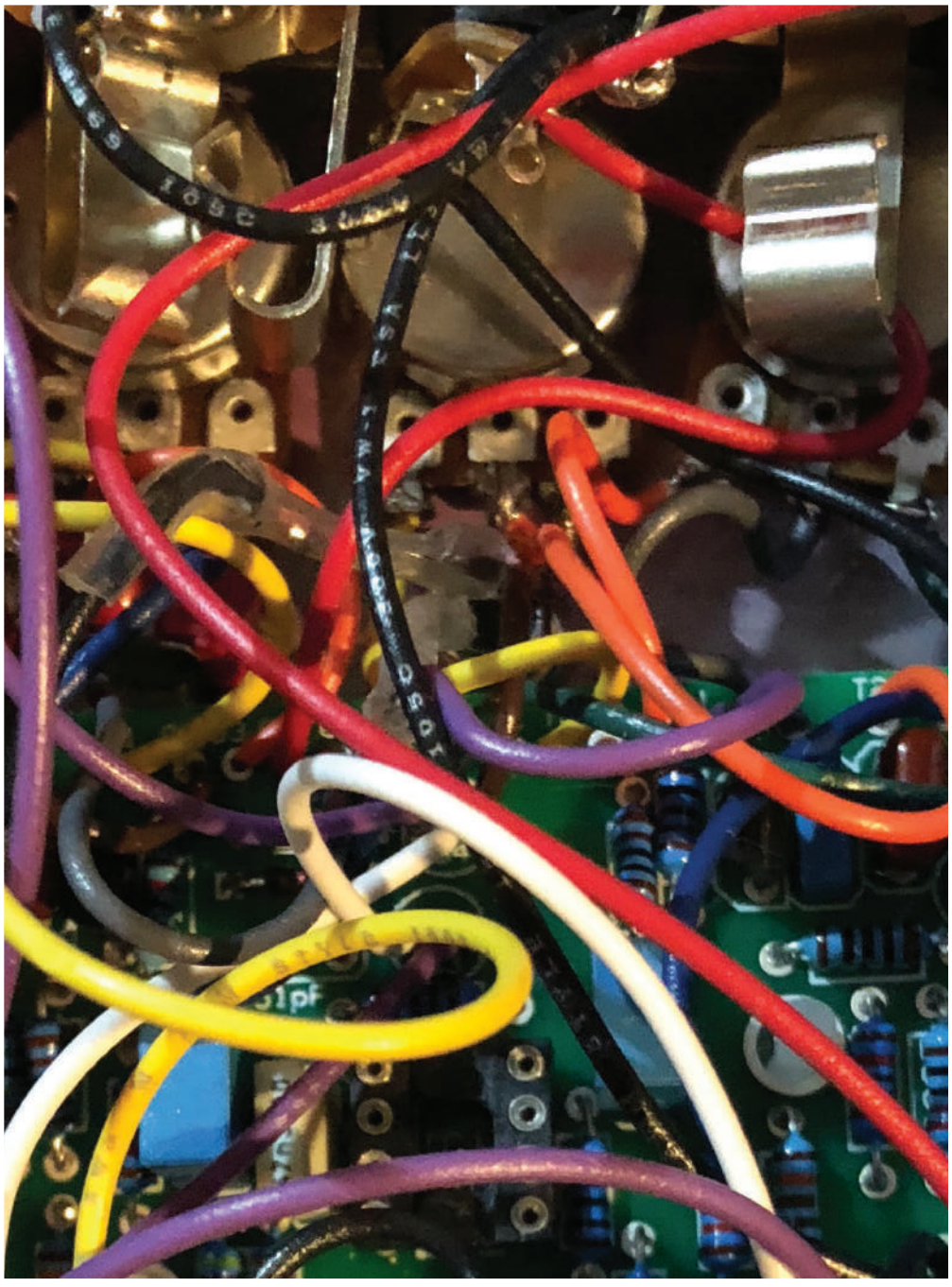
Open Technical Writing: An Open-Access Text for Instruction in Technical and Professional Writing

Adam Rex Pope
University of Arkansas, Fayetteville, arpope@uark.edu

OPEN TECHNICAL WRITING

BY ADAM REX POPE

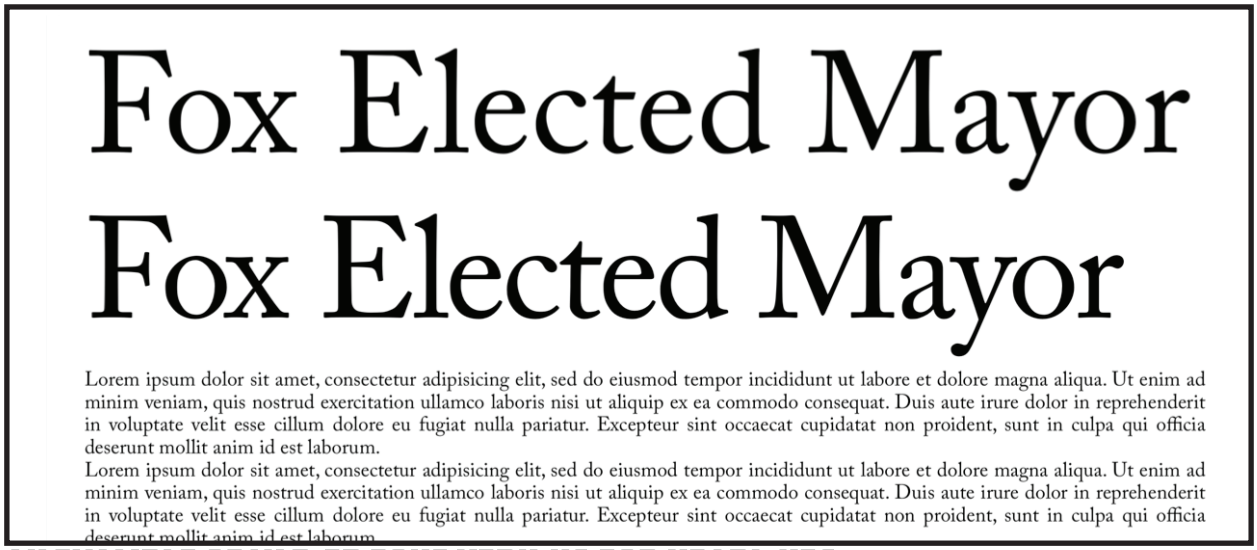


AN OPEN-ACCESS TEXT FOR INSTRUCTION IN TECHNICAL AND PROFESSIONAL WRITING

See what I mean?

As in the example text on the previous page, you start to see more issues with kerning using letters that need a good deal of elbow room, letters like "R" and "W." These letters can be a real bear to work with because they have a larger spacing to begin with in the font's internal calculations, and the larger sizing means that those calculations get exaggerated effects at larger sizes. Some fonts will do better than others, but you'll likely need to switch to optical kerning or manually kern the letters to get the impact you want—-usually a tighter text profile.

Take a look at the examples below: two different font options will be presented for the same font and the same text, one with tighter kerning at a larger size and another with a looser kerning at a larger size. See which you prefer for a headline:



AN EXAMPLE OF VARIED FONT KERNING FOR HEADLINES

In the above example, you have two different amounts of kerning between the two text groups, though my kerning isn't perfect in the second. The top example is the default kerning of the font I'm using at 150pt or so. Below it I have some placeholder text that you can use to see how well these would go with a body of text as a headline. Notice that the second example is much tighter and looks a bit more impactful—the lack of extra spacing gives the text more weight. The wider kerning doesn't work as well—it looks a bit too airy for a headline. Now, my kerning could be better: I'm not 100% happy with the gap between "F" and "o" in "Fox," but the difference I think is fairly clear.

Besides using kerning to adjust for larger sizing, you may also want to use kerning for creative effect, altering the spacing on words to make them convey something different than they would with traditional spacing. An example will likely make this use a bit clearer, though my example won't be the best:

AN EXAMPLE OF CREATIVE KERNING USE

Here, you have the "her" of "together" kerned manually to create an emphasis on the "her" part of things. You might be able to use this perhaps in an instance where you're naming a brand or a product and you want to have an iconic wordmark that you can use for identification. It might look something like this:

AN EXPANDED EXAMPLE OF CREATIVE KERNING USE

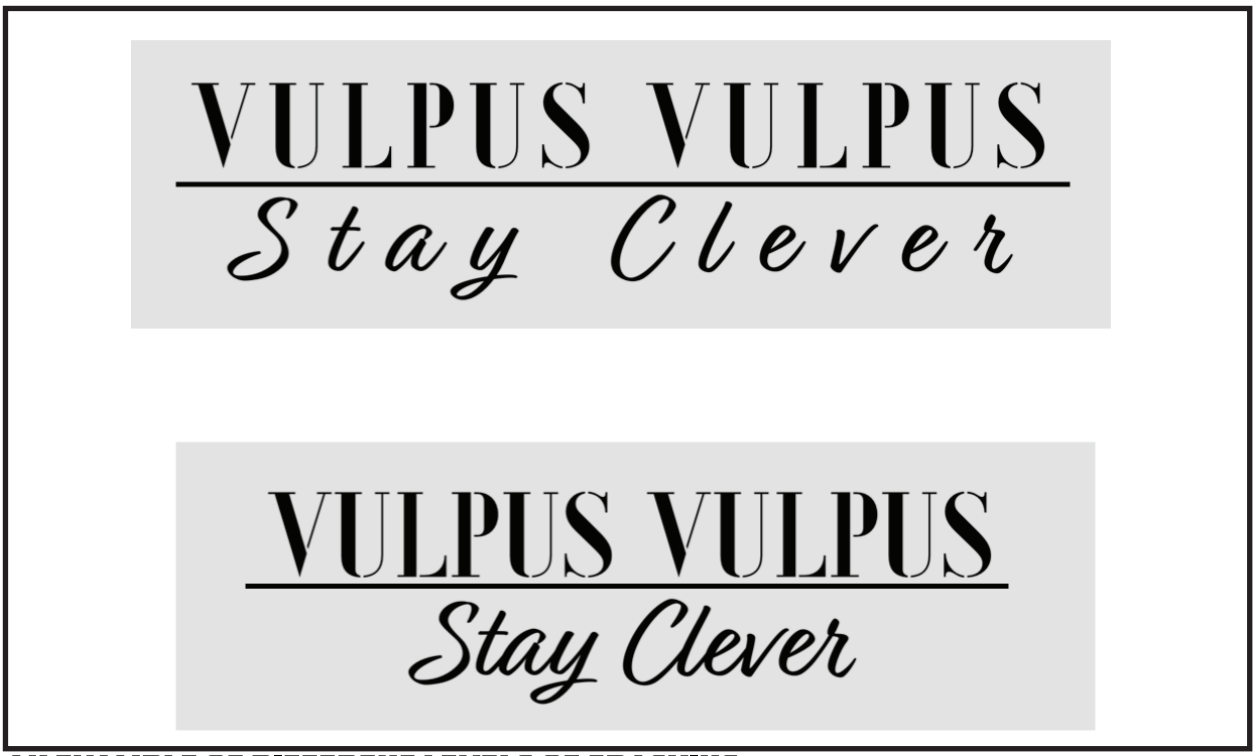
Now, you may have already seen some issues with the way that I've done this. For me, I see that when you separate "her" from the rest of the word, "together" can be read as "To get her," due to the way that the spacing makes us more aware that there are individual smaller words in "together." So, in this case it might not be the best idea to separate "her" with kerning because the final result might run afoul of my goal. That's the risk we run into when we start kerning things to emphasize certain parts of words.

Having looked at kerning, we next want to take a step up to tracking, an approach to modifying text that takes the concept of kerning and applies it across a full word or more. Tracking is the adjustment of the space between all letters at once—instead of taking a one at a time approach, you do everything all at once. Tracking can be useful for tightening up a loose headline or header that has gotten too wide or for spacing out something that needs to fill a bit more space. Be warned, however, that tracking is a fairly blunt approach to spacing letters. You will sometimes find that tracking changes will make most letters look good while leaving a few letters looking awkward. These issues you're running into with tight or wide tracking that becomes awkwardly wide or narrow for certain letters, they're why kerning exists and why fonts are kerned in the first place! As a head's up—many word processors will hide tracking under the term letter spacing.

As we've already noted, tracking can be useful to tighten up headlines as needed. I'll even let you in on a little secret: I used tracking in my example above with the mayor-based headline. Practically

speaking, it can be very hard to see differences between tracked headlines and manually kerned ones. In my case, as I noted above, the "F" gave me away slightly.

You can also use tracking in the other direction to give yourself more space when you need it to make sense. You may have seen this type of approach in certain word-based designs or posters that use extra space between letters to give an individual word the ability to fill an entire space. Below you'll see an example of what that looks like with and without the extra spacing:



AN EXAMPLE OF DIFFERENT LEVELS OF TRACKING

In the above examples, you see two different approaches to the same wordmark design, one using tighter tracking, and the other using looser tracking. You'll see in the top example there is an airy feel to things and the two different text selections hold the same general width. In the case of the second line, this takes a script that flows together and makes it much more spaced and less obviously a tight script font. Personally, I'm a fan of the first item—I think it works better as a brand as the letters stand out and are more aggressive in their presentation (though breaking up a script font that connects can be dangerous). The tighter presentation of the second example simply looks like text to me, text that has been made larger. What do you think?

Much like kerning, tracking can be used for these creative endeavors, or simply to fix the natural spacing of your fonts as you work with larger sizes. As technical writers you won't be placed, normally, in the demanding position of a graphic design professional, folks who take knowledge like this of font design as a mere starting place for all that they do. However, having an awareness of the ways that you can tweak even down to the character and line spacing opens up so much more for you when you're doing design work. There really is just about as much you can do with fonts and spacing

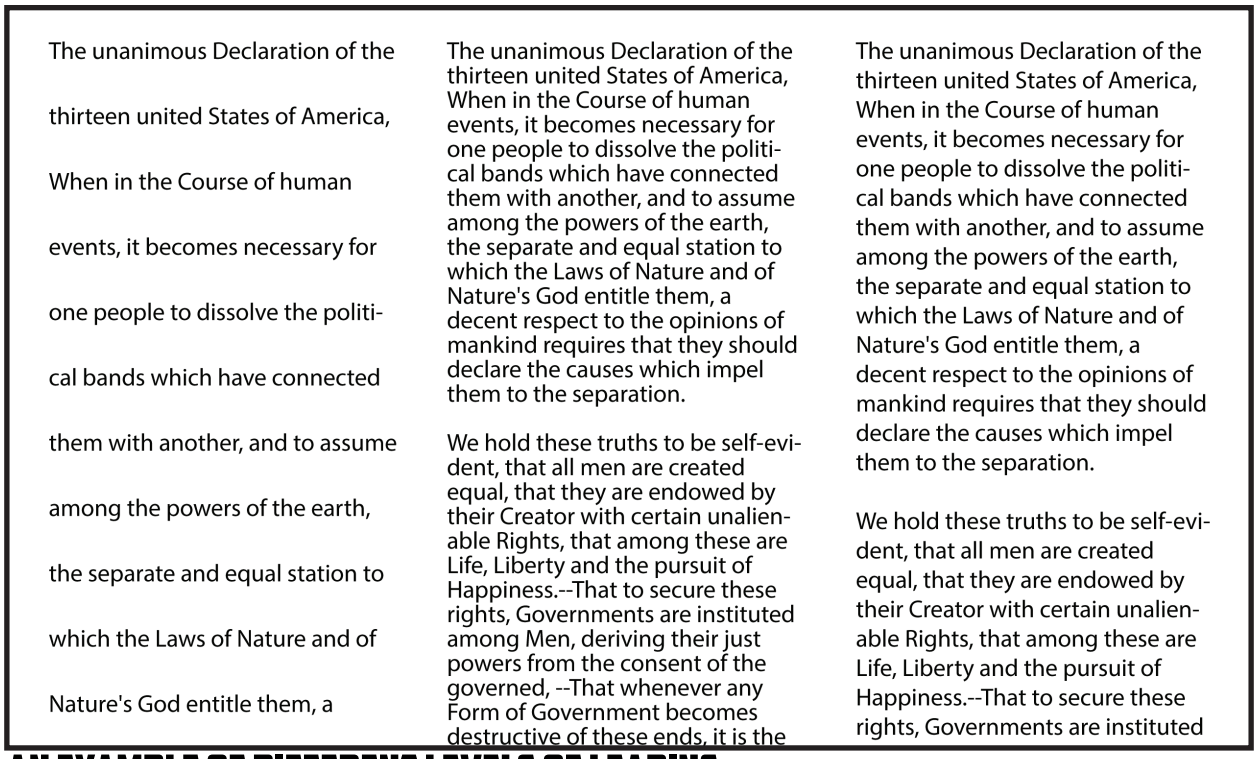
as you can do with paragraphs and headings!

The final spacing term that we'll discuss is leading, pronounced like the metal not the action. Leading refers to the space between lines, also known as line spacing. The classic term leading comes from the actual lead that would have been used in a printing press between the different lines. For a fun font fact, upper and lower case letters are simply those found in the upper and lower case of a font collection. The name is based on the physical placement of those images. Here's an example of a simple press and font bin:

A FONT COLLECTION AND PRESS

With leading, we're dealing with a term that represents the last vestiges of a physical process that for most of us has become an entirely digital one.

Leading, like tracking and kerning, can be used to shape the way our texts are perceived as well as the ways that they inhabit a space. As you create more space between lines, you give more space for ascenders and descenders to freely reach. Some fonts may well require you to manually adjust leading if they have an aggressive script that juts below and above the baseline, the invisible line that all type on a given line is oriented to. More space between lines can reach a point, however, where the lines cease to appear like they are part of the same text—they begin to break up into paragraphs or other structures. When you're using leading to give yourself more room, take care that you don't pass this invisible point of no return. See the example below for what different amounts of leading do to the same text:



AN EXAMPLE OF DIFFERENT LEVELS OF LEADING

Here we have three different takes on leading—the first example has aggressive leading, to the point that we barely get any text on the screen, the second example has an incredibly tight leading, almost getting to the point we don't want to read, and the third example has normal leading. Each has its own impact on the text.

In the example above, notice that one primary facet of leading is that it makes paragraphs more distinct as visual units when the leading gets smaller—you see the larger spaces between lines a bit better when the leading is tight, but those blur and almost fall away when you start dealing with larger amounts of leading. A slight reduction of the leading can tighten up a visual design, but larger amounts can have the opposite effect.

Practically speaking, you can use more leading in places where you may want to have a text annotated and worked on. Think about double-spaced papers that you might have been required to submit

in the past: the number one reason these papers are useful from a practical standpoint is that if you're doing handwritten markup on a paper, grading with pen and paper if you will, then you have room for comments and changes. The same holds true for any type of editing work. However, outside of those constraints, tighter leading is more pleasant to read (at least to me!) and wastes less space and paper.

One point of caution regarding all of the types of typographical manipulation we've discussed: do not use these tools to simply make something fit where it won't normally fit. When you go to great lengths to wedge a text into a small space using tracking or leading, you're getting your text into a place it wasn't designed to fit, literally. In this equation you save space at the cost of readability, and the folks who bear the brunt of that readability will be your users. Don't do that to them, please.

FONT AVAILABILITY AND ETHICS

Having covered a great many aspects of font design, I want to finish with a very short discussion of font availability and ethics. As you start learning more about fonts and what fonts can do when used in different ways, you may become quite aware of the limits of your font choice in your default working environment. Generally speaking, this is governed by your operating system choice—Windows and Linux tend to have less font choices than OSX, likely due to the classical heritage of Macintosh computers as designer-friendly spaces. To get new fonts, you usually have to find and download them or buy.

Font creation, like any other act of creation, is a lot of work. Font designers craft each and every individual character by hand and then go and create kerning for those designs and special characters and variations as well. There is a lot of work in this process, and just like any other creative professional they deserve compensation for their work. I say all of this to prepare you for a reality that you will encounter in any professional writing scenario: assets are not free, and many times they are not cheap for professional use.

For example, a professionally designed font might cost $25 for a single license, but if you wanted to use it across multiple computers and with multiple devices, you would need to investigate a multi-use license. As we'll discuss a bit later when we talk about project management and intellectual property issues in technical writing, professional materials require expenditures if you're not going to create the assets you use yourself, and often the creation of those assets requires such a specialized skill set and equipment that your either have to hire someone internally or simply pay the fees associated with using the content you want. With that said, once you start thinking about all that can be done with $250 image for a logo and a $25 font, all of the money and interaction that comes from using these assets, the deal is quite reasonable.

With that said, there is a thriving world of open source fonts available for use, much like this textbook is open-access and free for anyone to read and use. As with almost anything open source, things can be a bit wonky and slanted towards a particular usage. Open source content is usually created by folks with a particular ideological interest for open materials, folks that believe that open is best (I suppose I'm closer to this camp than any as you might be able to tell since I'm writing an open-access textbook), and folks that are using open source for a particular usage as part of an orga-

nized effort or passion project. There are other permutations of course, but these are two big camps. The end result is that the same idiosyncrasies that come with these mindsets carry over into the assets. Just be aware that open source doesn't mean that you get the same breadth and depth of quality for free. It means that in certain cases you can get amazing content for free from passionate folks, and in other cases you get a good-enough effort that exists because it needs to.

With that said, you need to be careful of what you're getting into when you go looking for free or cheap fonts. There are individuals who will rather unscrupulously strip a high-end font and recreate it and release it open-source or as a low-end product to make a quick buck. These recreations aren't going to be as high quality usually as the originals and they won't reimburse the folks doing the amazing design and research work needed to create the font you've been eyeing. Be aware of these issues.

Generally speaking, you'll want to be able to trace any fonts or other assets that have a potential copyright back to their original holder, as we'll be discussing later on. The way that business and professional writing works, if someone uses a copyrighted item to make money there can be severe penalties for lost profits and lots of lawsuits coming your way. When you're working as part of a larger organization, they'll get targeted because they likely have much more money than you and they're the ones making the profit off the content that you appropriated without a license or permission.

However, there are many fonts out there that designers will freely offer to you with freeware licenses—if you're not going to be making money off the font, they'll let you use it without issue. These licenses can be helpful for many personal projects that you may have, allowing you to create content without licenses designed around commercial use. I've used these types of licenses many times and as of late I've tended to use fonts created by a designer that I know through our mutual appreciation of comics. There is a wide world of folks creating fonts and I think you'll find they are passionate and fascinating folks to work with.

SECTION END QUESTIONS

1. Take a risk with font personalities! Recreate your institution's logo or wordmark with different fonts that have different personalities. What effects can you get? Why?
2. Use tracking or kerning to alter the impact of a headline or wordmark. What happens when you introduce more space or less space?
3. Do some original research—find a popular brand and breakdown their usage of fonts and spacing. What typefaces do they use? What fonts within those typefaces? What types of x-heights are used? How are kerning and tracking and leading used?
4. Find a professionally designed font and research the process behind acquiring a license for it and the limitations of that license in professional usage.

REMEMBERING THOSE SIGNPOSTS

Alright, we did it. We got through document design! You've undoubtably learned something from all of this, hopefully several somethings. With that said, you may be wondering in the back of your mind how this all will apply to you in a technical writing situation. After all, you signed up for a class

in technical writing instead of a class in graphic design. At the very least, consider this content value added—if you never had this knowledge, you do now! At the other extreme, realize that this content is the very heart and soul of what it means to be a technical writer. The formatting and the presentation of the content you write has the same impact and resonance with readers as your choices in the actual words themselves. It all matters and impacts things!

Now that you have a firm grasp of how layout, color, fonts, and all the rest work, use them to make your documents wonderfully signposted and easy to access. You now have a cornucopia of choices to make use of to guide your reader through a text in a certain way or to create a text that lends itself to a particular type of usage. You have a toolbox full of new and at times creative ways of signposting your texts, and that's exciting! (At least it is for me!)

Here are just a few suggestions:

SIGNPOSTING TIPS

- THINK ABOUT USING COLOR CONSISTENTLY THROUGH A DOCUMENT, SYNCING UP WITH SECTIONS, THE MAJOR COLORS OF YOUR ORGANIZATION, OR THE THEMATIC THAT YOU'RE COVERING (GREEN FOR GREEN ENERGY, ETC).
- ANALYZE DESIGNS WITH STACKING TO CREATE YOUR OWN INTRICATE LOGOS AND OTHER EFFECTS THROUGH LAYERING CONTENT TO CREATE A COHESIVE WHOLE.
- CONSIDER USING LAYOUT TO YOUR ADVANTAGE, CREATING SIDEBARS WITH EXTRA INFORMATION FOR YOUR READERS THAT NEED IT, WHILE KEEPING YOUR MAJOR TEXT FREE OF EXTRA INFORMATION THAT EXPERTS SIMPLY WON'T NEED TO SEE.
- CHOOSE FONTS THAT SYNC UP TO YOUR PURPOSE WITH USING THEM, ALLOWING DIFFERENT FONTS TO SERVE ICONIC ROLES, INSTANTLY SIGNALING TO READERS WHAT THEY'RE GOING TO ENCOUNTER IN A GIVEN SECTION. (THOUGH, DON'T USE TOO MANY—THAT GETS CONFUSING, JUST LIKE TOO MANY COLORS).

There are any number of things that can be done with the content we've covered—use this content critically and creatively to expand what you can do as a technical writer. I think you'll find that just this little bit of a background in document design can open doors to any number of possibilities you thought were outside of your reach previously.

CHAPTER FIVE:
WRITING IN GENRES

Having looked at the general idea of technical writing, the relationship of technical writing to the user, the visual communication angle of technical writing, and the process of document design in tech writing, we next need to cover a major pillar of technical writing in the minds of many: genres. (This is the part where we talk about report writing).

When we work in genres, we're working in what are essentially categories of texts that have formed over time to mean something. We often run into genre when it comers to books and television, with some books or shows (or films) labeled with categories like "Suspense" or "Mystery" or "Comedy." We can also get much more specific, especially in television where the are very well-worn genres that have appeared over time, so you might run into a "police procedural," a very specific type of show. In the case of police procedural, you have a show that is entirely about the process of the police investigating a particular crime. The genre gives you a clue as to the general type of show or film you're going to watch. (Bear with me in this discussion—you may wonder why I'm talking about TV, but I promise it will all wrap back around in a useful way in a bit).

Genre, however, is not specific to the point that it controls everything about a production: genre is fluid and changes over time. For example, the police procedural of the earlier years of television with shows like Dragnet did not have a major relationship component to the show—it was just about the crime for the most part. However, if you made a police procedural today without heavy interaction between different leads and ongoing stories about the police and their lives, you'd likely have a flop on your hands. The genre has evolved and expectations have changed.

Many genres come with an expectation even that you'll have a sub-genre that will come into play to flavor the dominant genre. Think about police procedurals again—you have shows that are much more direct and serious like the various iterations of behemoths like Law & Order and then you have shows much more playful at times such as Castle or even shows that skirt further towards the edge of the genre (if they belong there at all) like Psych (A true gem of television, up there with Star Trek: Deep Space Nine, Midsomer Murders, and Fringe). In these cases, there is a general approach to the genre, but all of that is filtered through the general gist of the sub-genre, such as comedy. With very common genres like the police procedural we often judge these shows on how they take the genre constraints and then push them or subvert them with a secondary genre or a new approach. Very few shows gain success for being an ideal procedural—it's all about what they do beyond that framework that gets folks excited. Sorry Dragnet.

Now, let's bring this back home—all of what I've said applies to technical writing genres. When we think about a genre like a report, that term is just like a genre in television like a police procedural. The term itself gives you a general idea of what the document you're going to create might look like, but for the most part it is utterly meaningless if you're expecting the genre to give you a detailed insight into what your report should look like. Just like the television examples, the technical writing genres are not laws carved into the bedrock of reality—they are categories, fluid ones at that, that give you a general gist of the type of document you'll be making without really getting into the specifics of things.

Asking someone to teach you how to write a report or any other genre in the specific sense of what steps to take and what sections to include is akin to asking someone to teach you how to make a po-

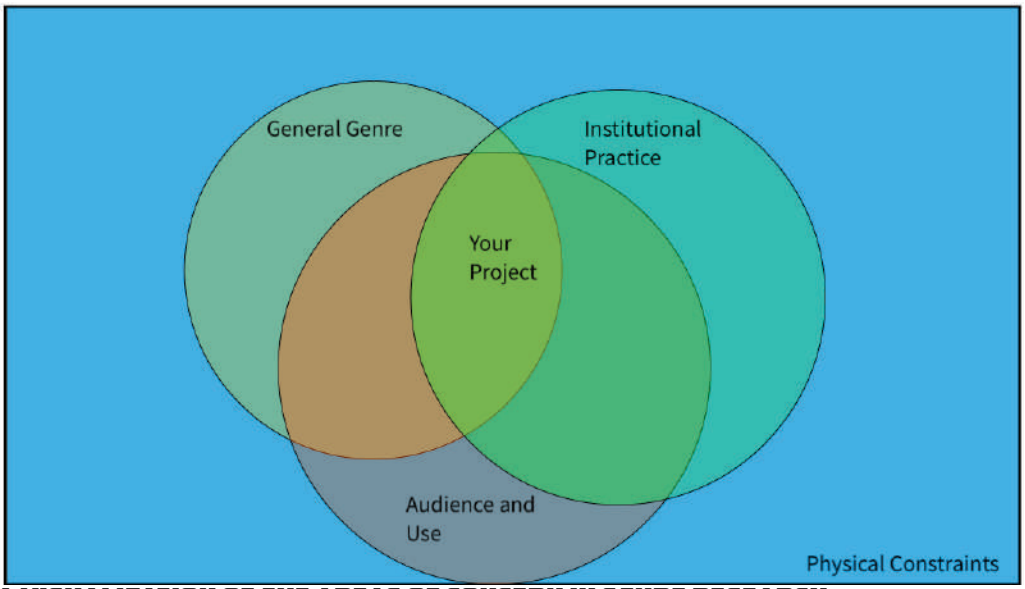
127

lice procedural—they can give you a general sense of the expectations and permutations of the genre in a broad and classic sense, but they cannot tell you exactly how to write it. And, to go even further and hammer this point home, if I was to tell you how to write a report it would be at best a polite fiction. My idea of a report and your future employers' idea of a report would differ, and even the types of reports you'd write within the same organization would change over time. There is no secret bastion of knowledge where you can uncover the true secrets of writing the ultimate report, no secret recipe to follow for success across time and space. And to be clear, anyone who tells you different isn't being very honest. So, what are we left with? We are left with research. Imagine that. Didn't see that coming, did you? :)

Genre work, just like any other part of technical writing, relies on research to get things right. Report writing, white paper writing, grant/proposal writing, technical description writing, and any other type of genre you'd want to associate with professional or technical writing will always rely on the context that you're writing in and the expectations that surround you. That isn't to say that having a general sense of a genre is useless—it isn't at all! You need to know the general sense of the genre just to orient yourself and help identify it. But, expecting a general sense of the genre to guide you from start to finish is expecting too much from too little.

When you operate within an organizational context and you're writing a genre like a white paper or a report, you're often writing within a series of constraints that will guide your work. On one level, you have the general gist of the genre that will be guiding what is going on. Unless your organization likes to call things odd names (my niece, for example, used to call buzzards "pelican badgers" for reasons unknown to anyone), the general genre constraints will apply. At the same time, the formal history of the genre within your organization will come into play—how have people done this in the past, and how do they do it now? In addition, the physical format of your genre will impact what you do (is it a template, or is it something that you have more control over?). Finally, the audience and use of the document will come to play as well. This confluence of forces will shape the final format of your text, and unless your workplace has very strict rules on such things (and some do, I'll freely admit) there will be some movement between documents as to what the genre looks like and does.

When you think about researching your work in a genre, realize that each of these elements will play into the others to create a final version of your genre. In some cases one element may be more dominant—for example you may have a use or audience that is hyper-specific, such as a federal grant that asks for a series of employment documents and professional assessments of your project by subject-matter experts (such as an archival expert if you're getting funds to preserve an artifact or archive). You might also have an audience that is extremely formal or informal that will impact how you write, which may clash with your institution's existing culture—it gets tricky fast. Below you'll see the confluence of all of this mapped in a visual form for those that prefer to see rather than to read:



A VISUALIZATION OF THE AREAS OF CONCERN IN GENRE RESEARCH

In each case, you'll want to query the general genre, the institutional practice, and the audience and use of your text to get an idea of what needs to be done.

For the rest of this chapter, we'll break down the discussion of genre into two major bits of content: we'll cover the general questions of research you need to carry out work on any particular genre situation, and we'll go through a top-level overview of a few genres and what you can generally expect in those genres. The real heart of the chapter will be the discussion of the research questions—they will be your guide in virtually any genre-dependent situation. The coverage of the various genres at the top level will supplement this by giving you an idea of what genres you might be called on to write and some general (subject to context) tips you might want to know when you're writing in those genres.

GENRE RESEARCH

When it comes to researching genre, as with almost all of our research that we've covered, it comes down to understanding the situation you're operating in and the expectations the situation places on you and the amount of freedom the situation allows you that you can make use of. The level of research needed really depends to a large extent on the amount of freedom that you have with the genre as it is designed physically. If there is a template, you're going to be highly constrained, but if there isn't a template you're going to get to have a bit more power. General genre, institutional practices, and audience and use still come into play in restricted situations, but in different ways than in a truly open context.

PHYSICAL CONTEXT

Some genres have very little freedom baked into them—think about most of the forms you fill out when you visit a doctor's office—this is done by design to get a certain type of information and to control what gets recorded and what doesn't. Forms tend to be the types of genres that strive to be

durable—the particular information recorded is there because someone somewhere has decided that it matters a great deal to them, though the value isn't always apparent on the front end.

Forms and other limited genres are useful because they create a set of data points that can be correlated across time and participants, creating a general sense of how things are working in the broader context as well as a sense of history in individual cases. Having a record of all of your vitals for example gives your doctor a sense of how your overall health changes from month to month and year to year. In fact, these types of ongoing records are vital in catching things like high blood pressure and other diseases that come on slowly at times.

The same benefits associated with forms also come with other genres that are highly regulated like grant and proposal applications. Many times these applications are highly specific to the particular project and agency that is offering money for projects or soliciting work. The categories exist because they matter in the rubric that the organization will use to judge the participants; they also exist because they help create a uniform standard for comparing the different applicants. Image how difficult it would be to compare different grant projects if the only universal requirement was that you send in a document describing your project—it would make valid project-to-project comparison much more difficult!

In contexts where you have very little control over the physical constraints that your text will work within, you may think that your job is fairly simple—you just fill in the data and move along with your life. That can be true in some situations, but especially in competitive environments where your text will be battling others that have the same constraints, the opposite is true. If you have five sections that are each limited to 500 words then the weight of each of those sections and the weight of each of those 500 words is exaggerated far beyond the normal weight that any given selection of 500 words would ever have. They matter because there is very little room for error or for elaboration. You simply must do the very best job you can with your allotment, and ideally you'll do a better and more persuasive job than anyone else writing under those same constraints.

In competitive cases, you need to focus intensely on the information provided about what is going on and how your text will be weighed. You need to be strategic in the deployment of every single word that you're using. Many times researching your audience and their description of these constraints can be useful, but you also stand to gain a great deal of advantage by having a clear understanding of the general expectations of the type of genre you're writing and an understanding of how your organization operates and uses these texts.

Because of the weighting power that forms have on what is valued and what isn't, the contents of any given form can have an incredible amount of sway over the politics of any particular writing situation. The form tells everyone involved what officially matters. Anything that the form omits or doesn't cover simply doesn't matter in the world of the form and making a case that it does matter means battling uphill against the form and those behind it. This is one of the reasons, by the way, that long term residents of bureaucratic systems are valuable assets and why institutional knowledge and history matters a great deal: if you know how the system works and what it values and why, you can craft a text that will get things done. If you don't have this knowledge, you may lack the ability to get a task done because you don't know the particular language and presentation that a situation

requires to create value within a given form and institution.

One other aspect of physical constraints in the context of forms worth covering is the interaction that forms have with the level of freedom that those working with the forms have. Like any automated system, forms remove a great deal of power from those doing the work. At times this is very much the goal behind the entire system. In these contexts the value of individuals to the system depends on the expertise needed to fill out of form or run a system. The more work the system does and the less work the individual operating the form or system does, the more replaceable any particular individual can be. As you can imagine, many organizations and companies that chase after profit and other metrics that focus on data rather than people love the idea of replaceable workers. The less value a worker has in a given situation, the less power they have to negotiate for more pay, better benefits, and better working conditions. The idea here is that the less power workers have, the less they can demand and the more profit and other metrics that can be squeezed out of a given context.

In case it isn't evident from the rest of this text, I find this practice to be more than a little bit troubling. The true value in a given organization rests in the people that know how things work and what is needed for success. A system or form is only ever a poor substitute for those folks, but their value is often hidden to those that don't see the daily grind of the workplace. One pillar of technical writing is advocating for such individuals, allowing their worth to be more visible and giving them more agency. At the end of the day, people deserve to be treated as people rather than data points, and from a purely functional standpoint you'll likely have a better end experience if folks doing the work in a situation have freedom to develop and leverage expertise and are valued for that expertise. Sure you can get things done with less expertise and more automation, but the end result of that trade is you're blindly swapping money and metrics for the well being of people and hard-earned local expertise; that seldom ends well in the long run.

Having focused on the power of forms and limited context, we also need to focus on the physical aspects of production in genre. In some situations, you'll be working in a digital environment where everything will be accessible and readable via devices. In these contexts, color and length matter a great deal less than in a paper-based world. Knowing where the genre will be living helps you because it gives you a set of limitations in all your other research and choices. You'll want to keep in mind that the format you're allowed to take will limit things. For example, if you're creating a white paper that will be printed, you'll want to keep in mind what the length and color usage will do to costs. If you're creating a brochure to be passed out, there are severe limits on text in a traditional tri-fold brochure that will control what is possible. Physical context is the lens that filters almost everything else.

For assessing physical context, a few quick questions can be helpful to give you some guidance in your research:

PHYSICAL CONTEXT RESEARCH

1. IS THERE A SPECIFIC FORM THAT I MUST USE FOR THIS DOCUMENT/GENRE?
2. IS THIS AN ELECTRONIC DOCUMENT OR A PAPER-BASED DOCUMENT?
3. WHAT ARE THE BUDGETARY CONSTRAINTS OF THIS PROJECT IF I'M PRINTING THINGS?
4. IS THERE A PHYSICAL FORMAT THAT MUST BE FOLLOWED, SUCH AS A TRI-FOLD BROCHURE?

There are obviously other things that you can and should ask, but these questions form a useful starting point for any investigation into genre.

GENERAL GENRE

In addition to looking at the physical constraints of a project, you need to investigate the general gist of the genre that you're going to be writing. We'll call this the triple-g of the situation. While the genre doesn't tell us everything we'd ever want to know and more about a given writing situation, and it certainly won't give us a set of concrete rules to follow, it can give us a firm understanding of the expectations that are generally out there for a certain type of text and what we need to do get our text recognized as a member of a particular genre (unless of course that isn't our goal at all).

For example, reports tend to report things and focus on providing information that is then used to inform decision making. The goal behind any given report is not simply to report findings—you're not just gathering data for the sake of gathering data. Instead, the report is being used as part of a decision-making process. Now, I suppose in some particularly vindictive contexts you might be generating a report for no other reason than the person responsible for your work doesn't like you and wants to make your life miserable, but generally speaking reports should have a role to play in deliberations. You may have already made the leap here, but in case you haven't, this then leads us to understand that with reports in particular what can matter a great deal is the types of information that will be valued in the deliberation the report is going to contribute to. Your 150 page report on the feasibility of a water garden being installed across the middle of your corporate campus will be of no value if you don't build the report around the metrics and data that your organization's decision makers will respect (or take the time to create metrics and explain their value if they are foreign to the organization).

Understanding things like the nature of reports and why they exist is part of understanding the general gist of a genre: it doesn't tell you how to do something, but it often can tell you why that something is done historically. Understanding the general gist of things after getting a handle on the context can be valuable because it helps you understand the institutional practice you find yourself

within. Once you get how reports work, then you realize that the particular focus in your individual context on the executive summary a little bit more—the decision makers involved apparently highly value the short gist of a project or simply can't be bothered to read longer projects that don't interest them after a quick skim.

One other aspect of a genre can be valuable in the general sense—the popular associations with the genre. For example, reports are usually not the sort of document that immediately quickens the pulse of your average individual. Yes, some people get quite excited about reports, but people get excited for all kinds of weird stuff. Generally speaking, reports have a rather dry and dull reputation. If you know that, you can go out of your way to counteract that in the structure and format of your text, as best allowed by other constraints. It is always good to know when you're going into a situation with a fundamental disadvantage.

To focus your work on the general gist of genres, the following questions may be of some use:

GENERAL GENRE RESEARCH:

1. WHAT IS THE GENERAL DEFINITION OF THIS GENRE?
2. WHAT IS THIS GENRE GENERALLY USED TO DO?
3. WHAT ASSOCIATIONS DOES THIS GENRE USUALLY HAVE?
4. IS THIS GENRE HIGHLY REGULATED OR DOES IT REGULARLY SUPPORT EXTREME INTERPRETATIONS?

Once you have this information available, you have another level of clarification and context to add to your investigation of the practices in your institution and the audience for your text.

INSTITUTIONAL PRACTICE

Once you've ironed out the physical constraints and the general gist of your genre, you need to take a long hard look at what your organization does with the genre you're writing within and how that genre operates in the context of your workplace. Just like different types of television series can be flavored by the broadcast network that supports them, or at least carry associations with audiences (think about the types of shows you associate with say HBO and Hallmark), genre and institution are linked. When you live and work within a workplace, you have to operate with the constraints that come along with it. You can certainly make an impact on how things are done, but that isn't usually something you have the power to do immediately without any dialogue or discussions.

For example, your organization may have an annual publication that it puts out for clients that covers major projects that have been completed this year and the benefits of those projects. It may be a weird hybrid genre, one that exists within your context as almost a take on the white paper. In the landscaping business, this might be a useful way to both celebrate the artisanship of your organization, create a sense of camaraderie between your clients, and could serve as the impetus for future work by clients that are on your list but haven't done much work lately. Think of it as the corporate

equivalent of keeping up with the Joneses.

In the context of our example, there may be constraints that come with this genre. It may always have the same color paper with the same general length and same general types of material within. If the primary purpose of the genre is to get people to come in for more work, knowing that also helps because it gives you a sense of how your institution values the work and what will be seen internally as good work (which may not be the same as what is seen externally as good work on the text).

Even in cases where the physical constraints are already decided for your organization, such as with a call for proposals that has a very specific set of requirements, there may be a historically successful or required template within your organization, a certain way of doing things. In that case, knowing how things are normally done helps you understand when and where you need to advocate for different choices and whether making certain choices is a wise use of your political capital. There is no use burning through the good will you've developed in an organization just to get a minor change to a document that really won't matter.

For our purposes, the following can be some useful questions where querying your institutional practices:

INSTITUTIONAL PRACTICE RESEARCH:

1. WHAT DOES THIS DOCUMENT NORMALLY LOOK LIKE AND CONTAIN?
2. WHAT IS THE PURPOSE OF THIS DOCUMENT FOR OUR ORGANIZATION?
3. WHICH PARTS OF THIS DOCUMENT ARE HIGHLY VALUED INTERNALLY?
4. WHAT IS THE NORMAL WORKFLOW FOR PRODUCING THIS DOCUMENT?
5. IF THERE ARE EXTERNAL CONSTRAINTS, HOW ARE THEY NORMALLY ADDRESSED?

These questions can give you a great starting place in your work, allowing you to figure out the particular expression of this genre in your workplace and the way the document is put together, why it is put together that way, and the workflow behind it that you may very well need to respect (such as letting the CFO see your draft before you get it edited because they have strong feelings about the text). Again, this is one more level of clarity you can gain in viewing the process you're going to carry out, one that helps you put the final level of research into even more specific of a context.

AUDIENCE AND USE

The last level of context that we'll cover is the intended audience and use. All the other levels of context inform our process, but the final layer of complexity comes from our use and the users of the document. This level differs from all other levels in that the user and use are often going to be without an advocate in the design process, unless the process has been explicitly designed around them from the start. Because of this one-directional workflow in many situations, your job as a technical writer is to gather as much as possible from this level that exists outside of your production process.

There are many documents out there that are visually gorgeous, make sense within a particular genre and physical context, and match up with what a given organization does, yet they fail to engage and serve their audience and assist in the tasks they're associated with. This isn't to say the other influences don't matter—each and every influence on a genre matters a great deal. But, of all the constraints on a genre, the audience and use are the most likely to be successfully ignored, that is they are the most likely to cause no consequences if ignored during the production pipeline. They don't so much create issues during production as much as they create issues after you're already out the door with a deliverable and it's too late to make changes.

Keeping in mind that audience and use can cause an otherwise successful document to fail, you can present alterations from this level of context from the viewpoint of a return on investment in the overall document creation process. You don't want all of this great work going to waste because the final audience didn't sit on the same level as the folks doing the writing and approval. As with any audience-centered process, you may run into pushback and need to scale back your goals until you can prove your point about audience/user information being valuable in the workflow of your group. But, I think you'll find the contributions this level of context brings can't be understated.

To research the audience and use, we'll primarily be walking along the same path that we traced in our earlier chapter on audience, but I'll narrow those down a bit for our discussion of genre in particular:

AUDIENCE AND USE RESEARCH:

1. WHO WILL BE USING THIS DOCUMENT?
2. WHO WILL BE ASSISTING THE USERS OF THIS DOCUMENT?
3. HOW WILL THEY BE USING THE TEXT?
4. HOW WILL THEIR USE DIFFER, IF AT ALL, FROM THE NORMAL USE OF THE GENRE?
5. HOW WILL THE USER'S CONTEXT IMPACT THEIR USE OF THE TEXT?

Once you have this information in hand, you'll be able to bring all of the various genre influences together into a single discussion. Keep in mind that the audience factors and use factors will be those that you may need to advocate for the most strenuously to those that are production-oriented rather than audience-oriented.

BRINGING IT TOGETHER

Once you've built out a picture of all of the influences on your genre, you can start to plan your actions accordingly. You may find it helpful to create a table with information on each level of influence, giving you a broad view of what is going on and what the various stakeholders and forces on your work may be pushing for.

One thing I want to stress is that this isn't a process that should always come into play when you're writing. Once you really get a genre, you will find yourself pushing through the writing process much quicker and with more surety. You'll simply get things down and not have to worry about

the specifics as much. You may eventually even get to dictate the specifics as someone with greater political power in your organization. Now, that isn't to say you shouldn't be critical of your work and reflect on it on, but by the very nature of how we learn to use genres and make them part of our workflows, this will be something that fades over time as you build your own expertise.

However, you will want to follow this process, or your own loose adaptation of this process, when you're working in a new genre and a new context. Correctly performing a genre for all of those involved is a crucial step to gaining acceptance for a text. You can't expect your report to be taken seriously if no one believes it is a report.

SECTION QUESTIONS

1. One way we show our understanding of genre and place is through satire—good satire demonstrates more than anything a fundamental knowledge of the nature of the subject of that satire. As someone who grew up in the 80s and 90s, *The Simpsons* first 8 or so seasons will always for me be the peak of satire of my American life. Think about genres you are very familiar with. Take a pass a satirizing that genre by doing something unexpected or silly with.
2. How does physical context change the way a genre works? Pick a genre from your institution that you normally use in one physical context and map out a plan to shift it to another genre. What happens?
3. Institutions evolve and change genres and terms the same way everyone else does. Do some research on your institution. What are some previous slogans, colors, symbols, and associations that are not longer part of the organization?
4. Sometimes a genre is misused by an audience because of a mismatch between what is needed and what is possible. What are some examples you can think of that involve misusing a genre?

POPULAR GENRES IN TECHNICAL WRITING

Having looked at a method to investigate genres, I want to shift our focus in the back half of this chapter to introduce you to a few specific genres in the world of technical writing. This will be a brief overview, giving you a window into what the general gist and goal of these genres tends to be in my experience as a writer, instructor, and researcher. Please note that between cultures and companies these documents may be drastically different—these are really just some popular conceptions of the genres themselves. To really dig into what they look and feel like, you'll need to do some original research. Surprised? Probably not at this point in our text.

I'd like to briefly cover some key players in technical writing circles: proposals and grants, white papers, reports, technical descriptions, instructions, and manuals. This is by no means an exhaustive list of genres—you'll find an almost endless supply of them out there. This is also by no means a definitive definition of each, but I think each overview will give you a window into the ways that these genres work and the types of problems they were invented to solve.

GRANTS AND PROPOSAL

Grants and proposals are one of the most action-oriented genres that you can work with in technical writing, though they often also tend to be some of the most rigorously defined by forces outside of

your control. A grant or proposal often comes from a specific solicitation by a funding source that is either looking for a particular project to be completed for them or looking to support projects that complete certain goals.

In a corporate context, proposals will be solicited for various jobs an organization might need. For example, I might put out a request for proposals and bids to create a new computer lab infrastructure in my building on a college campus. In this case, I'm soliciting folks who will complete a particular task and tell me how they'd go about doing that and what their budget would be, guided in all of this by my own suggestions and guidelines.

The world of grants can be quite different because grants are often not designed for a particular activity: they are instead designed to promote a type of activity. For example, there might be a civic beautification grant available in a large metro area that solicits projects from local artists to create public artwork that enhances the town and tells part of the local story to those that interact with the art. For the funding agency, giving these grants out is a way they can encourage and bankroll a particular type of activity without actually completing that activity themselves. It offers a way to make use of funding to influence activities without jumping into the business of doing a particular activity or pushing for a particular cause.

In some cases, grant funding agencies have a very particular set of values that they advocate for, or a very particular way of having projects completed, such as mandatory partners on a project. Be aware of these goals and values—they may not always mesh with your organization's values and skills. Almost any grant funding organization has an agenda for their funds, and it is entirely fitting that they would—it is their money after all. Just be aware of this and the issues it can raise. (For example, getting funds from some organizations may be more politically hazardous in certain areas than others, such as getting funding from an organization that supports charter schools and school choice in an area that is strongly against such measures).

Generally speaking, a grant or proposal has a few major sections, though the sections will always be contingent on the funder of the task at hand. The call for grants or proposals will tell you what should be submitted, what is needed, and sometimes will give you an insight into what matters and why. You simply must follow these recommendations. They are not optional! When a grant or proposal is judged, it will be judged by these rules and recommendations. Anything that doesn't fit will be discarded—an easy way to winnow the pile of applications.

Your goal with a grant or proposal is to show how you'd fulfill the goals of the call for proposals in a way that meets the needs of your funder. You need to show you understand the current situation, that you have a clear plan for action, that your group is competent and trustworthy for this type of work, and that you have a legitimate budget and timeline. Beyond these you may have some specific sections and deliverables requested, but usually any grant or proposal will give you a chance to talk about these types of subjects.

A good grant or proposal has a narrative structure. This doesn't mean that it's suddenly story time and it was a dark stormy night. What I mean is that you'll want to have an overarching narrative and theme to your work. You will frame the problem in a way that makes sense for your solution.

You'll frame your past work in a way that shows your ability to complete this current task. In short, you'll be persuasive. There are any multitude of valid and honest ways to tell the story of a grant or proposal; you'll just need to pick the right one for your situation. Again, this isn't a call to stretch the truth—lies and misdirection in a proposal is a great way to get into legal trouble or blacklisted. Instead, this is a reminder that your presentation of "the facts" is not enough.

You need to think about the context and who you're writing to and why. If you're offering new technology, you can frame the current technology as out of date. If you're offering green technology, you can frame the current technology as excessively energy intensive. Each of these frames is a valid one, but the pairs I've created make more sense than framing the current technology as outdated and offering green technology or framing the current technology as inefficient and offering new technology. Remember that this is a competitive genre and you need to make the best and most accurate case possible for your team.

When you're looking at how to frame things, look for what your organization values, what you've excelled at, and what the funding group values and what they excel at and ask for. You'll often find a way to draw connections between your group and the funding group. In some cases you won't be able to make many if any connections—this can be a sign this grant or proposal is a bad fit.

As a final note, and one that goes with all genres that we'll discuss—do not use boilerplate texts. Don't create a generic grant application and send it to everyone with a few names changed. This is a great way to fail at grant and proposal submission. No one likes boilerplate texts and boilerplate texts are incredibly obvious in their overly generic approach to everything. Take a little time and customize your texts to the situation and you'll go much further!

WHITE PAPERS

White papers are an odd genre, one that is not universally present in professional communication, but one worthy of noting. At its core, a white paper is a sales document, one that is designed to motivate someone to make a purchase. What is intriguing about a white paper in our context is that they are usually designed to educate someone enough to make them desire your current product or service. You can and should make a pitch for your organization, but usually after educating someone as to why it would be of value at all. (Note: white papers are not the same outside of the US. You may run into other documents called white papers that are totally different. Cultural context matters!)

To help explain how white papers work, I'll give you an example from my own background. Growing up, my father was the third generation owner of the family tire repair business. When I was younger, the primary work the shop did was the repair of damaged tires and the purchase of new tires. You could also get maintenance work like balances and rotations. At the time though, oil changes weren't even on the menu. During the 90s, my father started getting white papers from companies selling machines for front and rear wheel alignment. These white papers came with informative models that you could use to demonstrate what an unaligned tire would do to a vehicle and generally educated you on the value of wheel alignment on the life of your tires. It also made the business case for wheel alignment and advocated for a particular machine from a particular manufacturer. After reading the documents and talking with sales folks, my father purchased the machines and from that point on his business had wheel alignments as a service.

In the context of the 90s, wheel alignment wasn't something that a traditional mom and pop tire shop would have covered. It required specialized equipment that was not cheap, and it required special training for operators of that equipment. Getting a mom and pop shop to buy the expensive equipment directly wasn't a winning strategy—the price alone could spook people. Instead of making an immediate sales pitch, white papers and strategies tailored around education allow the manufacturers of this equipment to explain the importance of and sales potential of the machinery in order to help the audience to get to a point where they understood the technology enough to make an informed choice.

White papers are often used in areas where technology is advancing in a way that needs explanation. If you're offering a new piece of software or a new type of service, you may very well need a white paper to make the case for your approach. White papers don't make as much sense in established areas with established technology that you're going to be selling to folks. If you have a new spin on that technology, maybe a white paper makes sense. Otherwise, it's not going to be that useful.

REPORTS

We've already hit on reports, and so I won't spend that much time on them here. Suffice it to say that reports are documents that give someone information on a process or series of events or a plan, anything really, and then allows the person who has that information to make decisions or advocate for decisions or courses of action. If you want to blame someone for reports, blame a business major—a large part of the logic behind business majors is that they are experts at decision-making in business environments, aided by reports as part of their understanding of what is going on and what they should be doing. The rise of reports came along with the rise of the professional business major, allowing information to move beyond people and into paper and other sources.

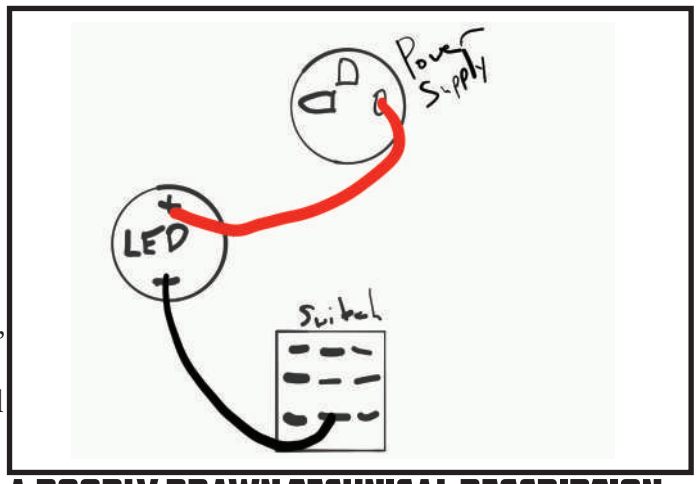
With any report, ask yourself who is going to be using this document and what they're going to be using the data for. This can vary depending on who is reporting and why. You may be tasked with a feasibility report on a project—in this case, you'll be creating a report that helps decide what actions are available and whether they make sense. You can also see reports generated by openly or not-so-openly political organizations that have very particular values and goals behind their reporting. Not all reports are created equal.

When reporting anything that caries a value judgment, the most important thing you can do is create a set of criteria. If you set up the criteria and define them, you can have a productive discussion because you're making a case for what measures matter and then using those measures to make a judgment call. If your audience agrees with your measures, all the better. If they don't, you'll need to make the case for your measures. Without criteria, your report mostly stands as opinion. I have an opinion, and you have one too. Opinions are great, but when we judge them based off specific criteria we can debate on, we can have a constructive dialog. If we're just railing at each other's opinions with no overarching context to create judgment and value, we're not going to get far. (Just watch some political talk shows and you'll see this in action very quickly).

TECHNICAL DESCRIPTIONS

A classic of technical writing that is often associated with engineering, technical descriptions are fairly self explanatory—they are a technical explanation of how a particular system or device works. The use case for descriptions can vary, depending on who is going to make and share the description. For example, there is a thriving online world of folks that reverse engineer and build their own guitar pedals (effects devices that modify signals for distortion, compression, modulation, etc.). A large part of this community is sharing how a particular pedal works and what the components are within a given pedal, so they share a lot of domain-specific technical descriptions.

Technical descriptions are one of those genres where you may well get a chance to really get into using your field-specific terms and language because they are designed, often, for folks that are already experts or who at least know enough to read through the text. This isn't always true, but it can be many times. Here is a simple technical description of how the LED connects to a guitar pedal, badly drawn by your author:



A POORLY DRAWN TECHNICAL DESCRIPTION

Now, this particular technical description is entirely visual—that isn't to say that all technical descriptions are, but you do find visuals as a component in the genre. This is a particularly awful description because of my color choice on the black wire between the LED and the switch—you notice it overlaps the minus symbol, making it unclear as to whether it is positive or negative. In addition, I've neglected to include a resistor in this schematic, making it very likely my LED will burn out quickly and be ridiculously bright. But, this crude drawing could very well accompany some text like the following:

"In this pedal the LED is connected directly to a wall-mount power supply input. Not pictured here, a resistor is located between the power supply and the LED, regulating the output of the LED and preventing premature burnout. The ground of the LED connects to the foot switch—several other grounds from the PCB and the input connect here as well."

In this simple explanation, you get an idea of what is happening in the design. This isn't very technical, but it does tell you what is happening in this particular system of a pedal. That can be enough in the hobbyist's world where you simply need enough understanding to make things happen electronically without mishap. In the world of electric engineering, this would likely be entirely insufficient. Audience and context matter.

Anytime you're going to describe a system or a process, technical description as a genre can come into play. It isn't the most glamorous genre, but it has a useful purpose and helps folks understand how things work.

INSTRUCTIONS

It's come to this. Instructions. You knew they were coming, right? If any genre is associated with the teaching of technical writing, the genre of instructions would be the one.

When we think about instructions, we want to think about them as tools for use—not those things you throw away because you don't need them or can't read them. Instructions get a bad wrap because too often they are designed as an item in a checklist that needs to be completed rather than as an essential part of any project that is oriented around sequential tasks. Good instructions can be a true joy to use, but we so often end up with the phoned-in-at-best variety that perhaps has lead many of you to despise the genre.

Time for a brief confession—I truly love instructions with all of my being. To the very depths of my soul, I love instructions. Why, you may ask? They help you do things. They tell you how things are supposed to be done. They put order into a situation. I like following instructions and I like making them because of this. I find special pleasure in good instructions that are thoughtful and useful, like so many are not. I like instructions because they take a process that might be challenging or tedious and make it easily understood and perhaps even educational. (As a side-note, I'm also a huge do-it-yourself person having built my own computers since I was a teen and having most recently tiled my bathroom floor after some intense research. I like learning about things and how to do things and instructions make that possible).

The biggest challenge with instructions is one of perspective—you often don't see a task that you're good at correctly. Think about starting a car and putting it into reverse or putting your key into your lock and unlocking your front door at your dwelling place. These are tasks that you do all the time, and as such you tend to internalize entire steps to muscle memory. It's kind of like when you start walking or driving somewhere and accidentally end up going to your normal destination when you meant to go somewhere else but managed to get a little absent minded. Instructions often suffer from this phenomenon because they internalize and omit steps that are essential to newbies.

The best thing you can do is to take a literal approach to your instructions when testing. If they don't say to do something, don't do it and see what happens. You may find quickly that you're overlooking key things like pressing the brake pedal when you shift from park to reverse when driving. This type of testing will get rid of your blind spots by forcing you to run into them.

The best thing you can do outside of personal testing is to find someone who truly doesn't understand what you're trying to explain. This can be hard with simple tasks, but if you can find a test subject or four you can find out quickly through various research methods what is going on and where things are breaking down. The final chapter of the text offers you a number of solutions.

Finally, remember that the best instructions offer a clear view of the process that is taking place and how each step comes together as part of that process. You'll find folks have an easier time with things when they know where they are going and what their progress is. In addition, useful illustrations and even things like color coding of steps and repeated processes can make things much easier for anyone actually using your work. Remember—instructions are used to do something. Make sure they are

designed around that use!

MANUALS

If there ever was a genre that was the opposite of glamorous and exciting, I think manuals would be that genre. Manuals get a bad rap I think because they aren't designed for reading, and we tend to judge most large texts by their readability rather than other metrics like use. Manuals are a reference tool rather than a relaxing read to pore through while you sit in the hammock and sip lemonade. They are designed to be searched to find information about a specific part of a process or system or procedure or to solve a particular problem.

Manuals should be judged by how they help you fix an issue or understand something, not by their capacity to entertain. For example, if you have a flat tire you'll reference your car's manual to find out where your spare is and where you jack is located (if you have one instead of a can of flat-fixing goop). You might also use a manual if you need to know how to format say, a television show when using Chicago style.

Like instructions, manuals can be annoying to use because they can be designed as an afterthought. We've almost trained ourselves in many circumstances to avoid manuals, and that can be a huge mistake! A good manual can be a powerful tool to help you through a complex process.

Practically speaking, think about a manual in a professional capacity as a barrier against having to do tech support of some type. A good manual helps folks understand systems and troubleshoot common problems without getting overwhelmed. A great manual does this in a clear, well-documented and illustrated way that allows easy identification of information that is helpful and avoidance of information that isn't helpful.

CHAPTER SIX:
MANAGING A PROJECT

In our final cohesive chapter in the text (the final chapter is broken up into stand-alone discussions of method) we will be going through the process of planning and then delivering the final goods on a given technical writing project. As we go through this chapter, we'll draw on content from almost every chapter that has come before while also charting new ground in our discussions of things like idea generation, collaborating with folks inside and outside your team, prototyping and iterating, assessing and acquiring rights for materials, editing the final copy of your deliverable, and putting things into production and distribution. It's a lot, but we'll get through it!

In our discussion of each step along the way of getting a project out the door we'll be working through this tremendous task in phases. Just like with the writing process, these phases may be highly abbreviated in situations where you know what is going on and you're working with folks that you and your process. With that said, you will sometimes need to complete a major technical writing project from start to finish, from idea to final deliverable. In those situations, you need a plan and need a firm awareness of what is going to happen at each phase and when you need to move on. Take these phases as suggestions and guidance that can and should be tweaked situationally.

PHASE 1: IDEAS, AUDIENCE, AND GOALS

Getting starting on any technical writing project, you need to have a firm awareness of what exactly you're doing and who you're creating your final deliverable for. When we think about projects, we want to think in terms of deliverables—what will you deliver to your client(s) at the end of the day? These clients may be your boss, they may be someone outside your organization, they might be your instructor or thesis or dissertation committee in an academic context. In any case, you need to know what you want to deliver, who's going to get it, and how you're going about all of that.

Deliverables and audiences and goals intertwine considerably—depending on what you want to do and who's going to be the target, what you want to create may change. For example, you might be creating content that you want to market to skateboarders for a ready reference. If you know much about skateboarders, you may know that in general they stereotypically love stickers, especially stickers that they can decorate their boards with. If you're trying to get awareness of say, concussion symptoms, to the broader community of skaters, a cool looking sticker might make a lot of sense. That deliverable fits that community.

SKETCHING OUT GOALS, DELIVERABLES, AND AUDIENCE

When you get started, you want to think horizontally across categories. Don't get trapped in audience, goals, or deliverables. Think about how each of these interact and the constraints that each puts on the rest. Using something like the chart below (which can be drawn easily on a whiteboard for collaboration), figure out what the constraints are for your project:

	Goals	Deliverables	Audience
Requirements			
Preferences			
Things to Avoid			
Things in Common			

A TABLE FOR WORKING THROUGH GOALS, DELIVERABLES, AND AUDIENCE

Think about each of these sections as being a supplement to or new way of thinking about the existing writing process that we've discussed previously. When you work with a project, you need a broader lens than the specific writing process you may have—your projects often will transcend boundaries that individual work won't come close to touching.

When you think about goals, think about your team's goals, your project's overall goals, and any goals that may exist outside of your particular team and project that may come into play (such as an organizational goal to reduce carbon emissions). For goals, think about what is going to be required, what would be preferred, and what should be avoided.

After thinking about goals, start thinking about audience—what will your audience require, what will they prefer, what will they want you to avoid (or should you avoid with this group) and what might they have in common with your goals/group? Again, this is part of the larger writing process, but you're trying to think long-term about a large-scale project.

When you assess deliverables, you are creating a space that will bridge your goals and your audience. The deliverables are a place where each group will impact what goes on, and in many ways the deliverable is the mediation of the audience and your team's goals. Each side has some say about what happens in this slot.

Don't take the above as the definitive version of what will be happening in your project—think about how the above can be used to think through the project you have, giving you something to work with as you advance to your ideas phase.

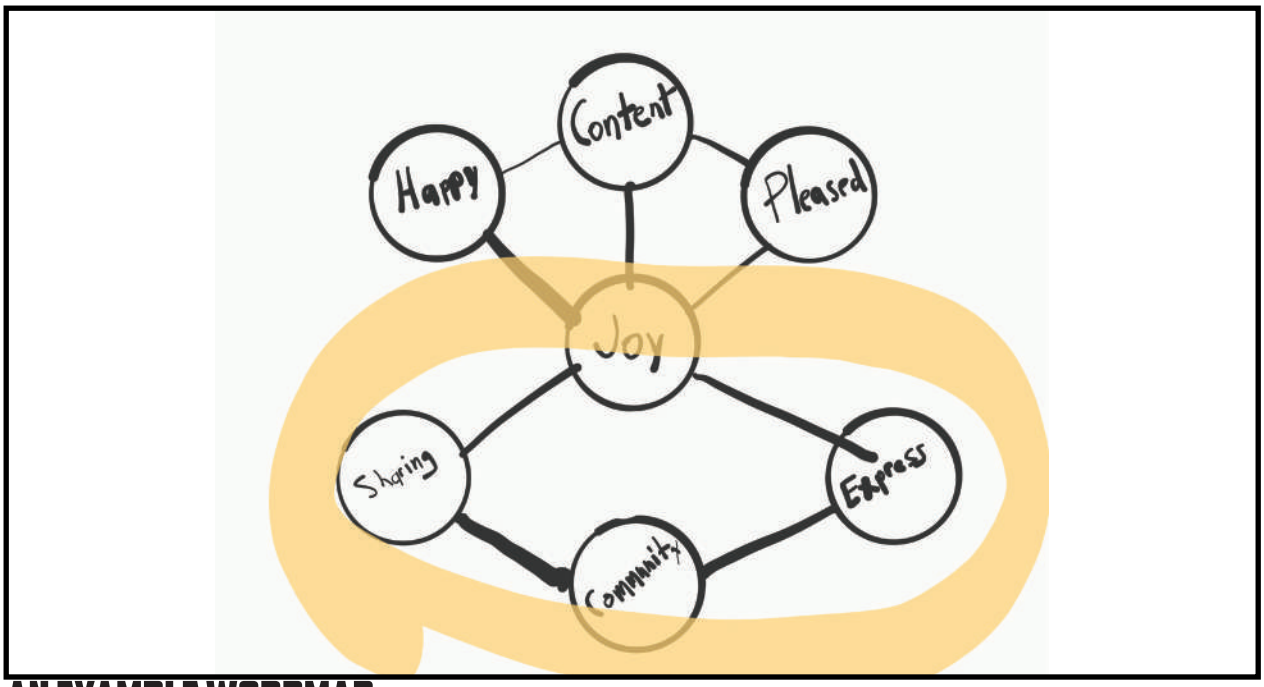
THE IDEA CREATION PROCESS AND THEMING

Once you've got a handle on your goals, audience, and deliverables, you'll want to start to think about the format and form of these deliverables. Knowing that you want to create something doesn't tell you how to create that something. Just like the example we had previously of the wedding program, you often need to have an angle or a thematic that will guide what you're going to create. The idea creation phase of things, which can happen concurrently or after you've assessed the audience and deliverables and goals, tries to figure out what this project can/should look like and how it can all fit together. A lot of the ideas phase can be visual design work, but don't forget that visual design can also include the actual format and medium of your final deliverables. Large-scale projects like campaigns to build awareness for an event or issue often can contain documents of a variety of types and formats, but these documents tend to be bundled together using a cohesive theme. You see the same thing many times with university campaigns that will color the way a university presents itself for the duration of the campaign.

For example, you might be tasked with creating a public-awareness campaign about a new park that will be built in the center of town. To do this, you would need to create a variety of texts such as flyers, emails, radio spots, banners, and signage. The overall theme of your campaign would need to mesh with the visual identity of the city and attract the particular audience you're aiming to bring into the park. For example, if the park has a central venue for hosting local concerts, you might go with the theme that "West End Park Rocks," going with a rock-and-roll theme for all of the visuals you'll create. You'd then want to see what this theme filters out into—how do you express rock and roll visually? Do you use a guitar outline? Do you have a band silhouette? Do you adapt the visual conventions of classic concert posters and album art? You have to figure out what the theme does when it meets the deliverables and campaign you are working with.

First off, you need a theme that you can think through. To arrive at a theme, you want to think as broadly as possible. One thing that can be useful when you're creating a theme as a team is to find examples of content that you're required to incorporate as well as content that you like. Create a dropbox of sorts of your ideas and examples that you can use to collect data on what you might use as a theme. If you're designing a public information campaign like the example above, use your phone to take shots or screenshots of things that fall into that genre that have elements you like. Just like with visual conventions, you're looking for elements that you can blend together into your own cohesive whole, your own theme.

Themes can also work with feelings and ideas—you can think about what types of ideas and feelings are associated with your project. For this, instead of creating a repository of content, you may want to start brainstorming with something like a word map. What key terms make sense for your project? What are terms and adjectives that expand off of them? What theme might you create that could encompass all of these terms and thoughts? See the example below for what this might look like sketched out on a whiteboard:



AN EXAMPLE WORDMAP

With the above example, the word map begins with the term joy, and then expands in different directions. The team in the example goes in two primary directions—synonyms for joy and actions associated with joy. Then, you'll see the connection built off of express and sharing towards community, two things that communities tend to do. The final result here might end up being a theme of "The Joys of Community," based off the mapping and what meshes well.

Feelings and adjectives can also be associated with particular styles, so once you get into a concrete theme in this area like "The Joys of Community," then you'd want to think about fonts and imagery that are associated with joy. This could be another place for the type of data collection and examples noted before where you create a makeshift dropbox for content that you can share to think through what the particular theme looks like when expressed horizontally across a campaign.

CREATING A FINAL THEME STYLE GUIDE

Regardless of your direction, the goal of this phase is to come up with a concrete them that you can use for your deliverables and project. The end internal deliverable from all this work should be a concrete breakdown of what your theme will be and how that theme will impact your deliverables. The following items may be useful to build your theme into something that can be shared and used, the beginnings of a style guide (something we'll get to in the next phase in more detail):

Theme description: What is your theme? How does it relate to your project's goals and audience, and how does it impact the deliverables?

Theme colors and imagery: What colors and images are associated with this theme? Think categorically here.

Theme fonts: How does this theme translate into font choices? What fonts will be used, and where will they be used?

Theme layouts:What will be the various layouts/deliverable designs? How will they incorporate the theme to share information with your audience and to complete your goals?

Once you have all of this together, you're in a good spot to start thinking about putting all of this into practice with a concrete style guide and some prototypes of your deliverables.

PHASE 2: WORKING WITH OTHERS (INSIDE & OUTSIDE THE TEAM)

When you think about creating a major project, one of the major hurdles that you'll encounter is communication—how do you communicate with the folks you're going to be working with? What are going to be the ways you communicate and what rules will govern that communication?

Generally speaking, the idea that too many cooks can ruin things holds true for design projects. Too many goalposts and too many folks with power can make things get crazy. Because of that, you want to have a well-structured workflow that will solicit feedback from stakeholders in a productive way while allowing your team to get work done without being constantly second-guessed and overridden.

One major step you can take is to establish a concrete communication channel and a point person for each major group of stakeholders. Communication can be routed through this channel and these individuals, preventing chaos and overload. It can also help if your workspace for deliverables and other content isn't accessible to the stakeholders—you don't want something that you're not ready to share getting shared.

As far as file services and the like, take stock of what features you'd need and what is available and secure or preferred. For example, if you're doing something that is primarily text-based, you may want a service that allows real-time commenting and responses to comments with an editing interface. If you're doing something primarily graphical or that will be printed, you'll want to make sure your files can be shared easily and accessed quickly. Adapt to your situation.

Chat solutions like Slack and Teams can also be helpful, but be aware that you don't necessarily want an open channel between your team and the folks you're working for. The design process can be a messy and chaotic experience to those on the outside that don't understand what iteration looks like.

STYLE GUIDES

One of the most powerful tools that you can leverage when working in multi-person teams is going to be the style guide, a document that allows you to decide what will be the canonical choices for any and all design and textual variations. Style guides are used for visual design as well as for editorial work, allowing you to put into writing your final decisions and preferred practices regarding the word choice and the visual look of a given project. They're immensely helpful, especially when a final deliverable is the product of a large team working for multiple stakeholders.

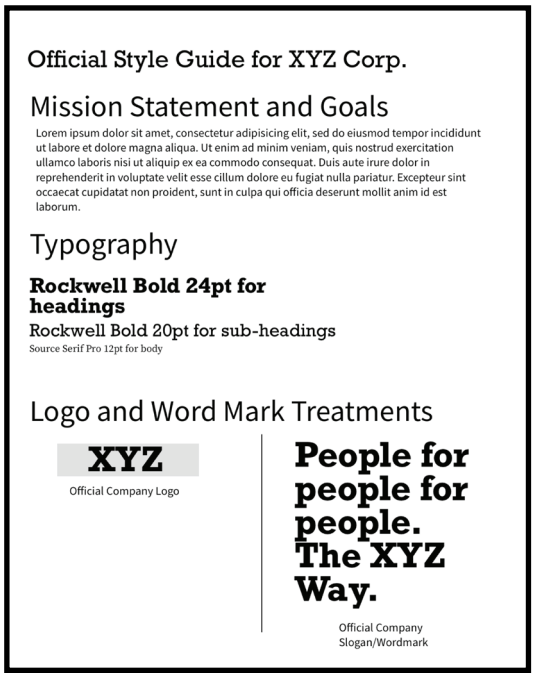
Style guides are usually formatted as reference materials and are designed to regulate what the communications of a given organization are going to look like and feel like. Having a cohesive visual style as well as a cohesive editorial style allows for regular information and consistent representation of the organization. For example, most universities have very particular ways that you can present a school or department with the university logo/wordmark. This is designed and guarded in such a way that when you see the particular official combination that is approved, it looks like an official university text. The same also holds true for how to abbreviate titles and positions.

In the corporate world, style guides are used for consistent brand imagery and for consistent internal and external communications. Starbucks is famous for their web style guide and Boeing is famous for never changing the name of a part, allowing mechanics to always know what they're talking about and working on. Practically speaking, a style guide lets you know what is going to be okay and not okay when working in an organization and it allows those in charge to put into place their desired design choices in a relatively transparent way for those in the organization doing communication work.

In some cases a style guide may reference an external system like the Chicago Manual of Style. A preferred dictionary might also be used, often the Merriam-Webster Dictionary in the US. In these cases, the organization is allying itself with a standard that is larger than one particular group or company. This can also be the case when an organization works primarily in an area where the style is dictated by formal groups associated with the work, such as legal teams using standard legal annotation.

When creating a style guide, you'll tailor the guide to the situation. A comprehensive guide will often cover official word marks, logos, color combinations and color codes, typographical choices, layouts and templates, as well as editorial choices such as abbreviations. More targeted guides may limit themselves to just visuals or just text.

Below is a brief one-page example of what a style guide might look like, especially if you go for a plain guide that focuses on getting information across quickly:



Official Style Guide for XYZ Corp.

Mission Statement and Goals

Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Typography

Rockwell Bold 24pt for headings

Rockwell Bold 20pt for sub-headings

Source Serif Pro 12pt for body

Logo and Word Mark Treatments

XYZ

Official Company Logo

People for people for people. The XYZ Way.

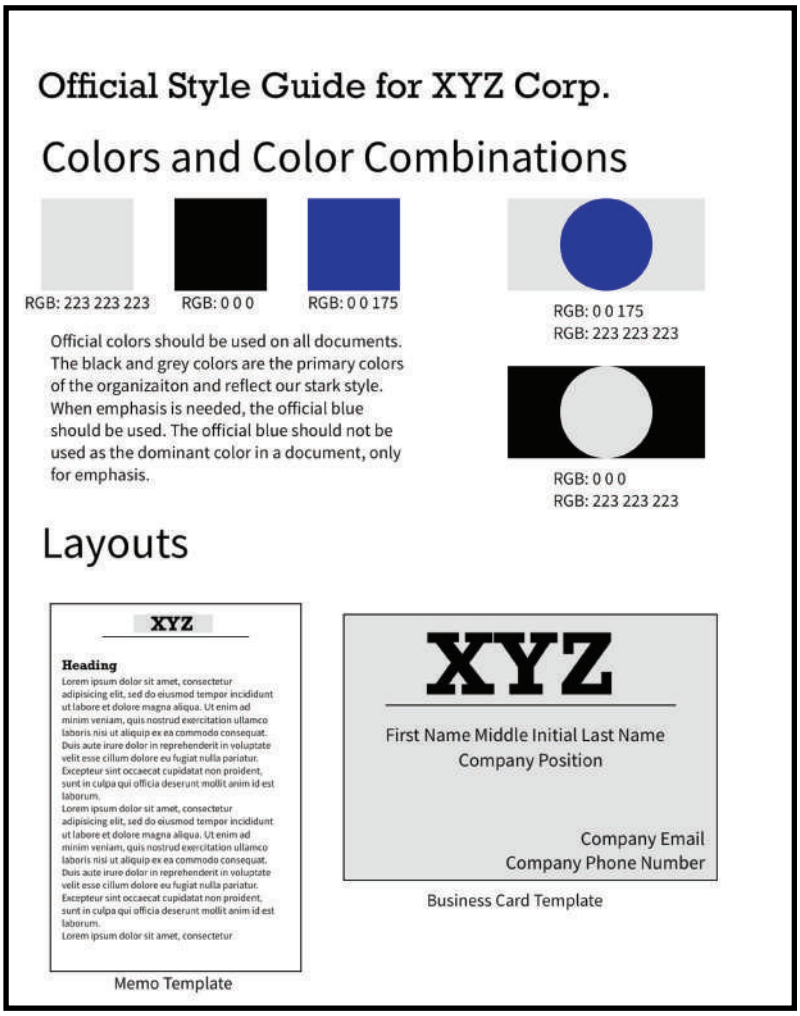
Official Company Slogan/Wordmark

In the example guide, you have information on the feel/mission of the company first off. The mission statement is often used to set a tone and goal for communications. This can also be true of projects and campaigns. Next you have the official type choices in a limited format, displaying the choices at the size and format recommended. Next you have the official presentation of the logo and the wordmark slogan. A wordmark is often a text-based representation of an organization without any extra graphical elements. From these examples, you can know exactly what choices you're going to need to use when you work for this organization.

A SAMPLE STYLE GUIDE

In addition to missions and typography and logos/wordmark, you can also encounter colors and layouts in a style guide. For your own projects, these can be extremely helpful because they can be a way to quickly communicate your design ideas without getting into specifics. See the example here for what this might look like.

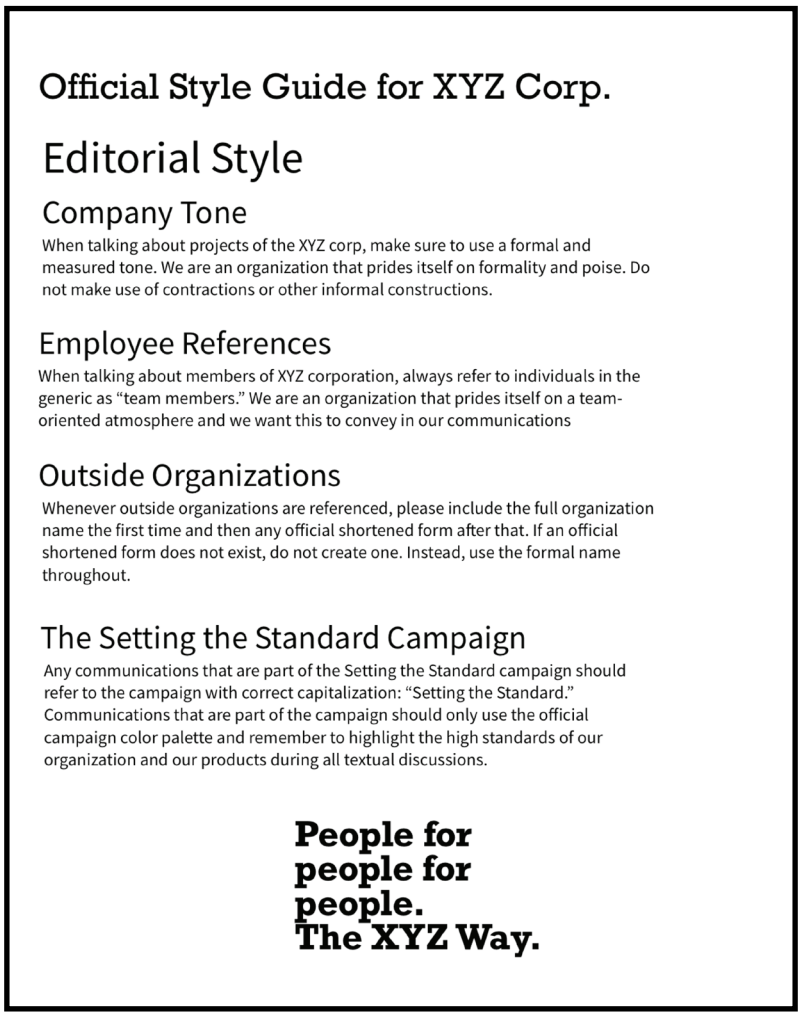
In the example on the right, you'll see specific color swatches are presented, color combinations are suggested or required, and a little bit of information is given about color usage. This is the norm in many guides, and while this guide only includes RGB codes, many official guides would include CMYK to make sure colors are consistent across mediums. The templates that you see simply suggest the overall shape and form in this limited example, but they can get much more specific. The business card on the right is closest to a concrete example.



STYLE GUIDE PAGE ON DESIGNS

A style guide really should expand and contract in content and scope depending on how you want to use it. The goal here is that you can communicate to folks the specific ways that you want to share information and how you want to present your project/organization. In our case we could almost go all the way into a design brief, another classic type of project-oriented document, but for our purposes we'll stick to the style guide.

The final expression you may see that I'd like to show an example of is the editorial style guide, a guide that suggests that wording and textual choices that will show up in your documents. In group writing situations an editorial style guide can be useful to make sure you're keeping a consistent tone and word choice throughout. See the example on the next page:



Official Style Guide for XYZ Corp.

Editorial Style

Company Tone

When talking about projects of the XYZ corp, make sure to use a formal and measured tone. We are an organization that prides itself on formality and poise. Do not make use of contractions or other informal constructions.

Employee References

When talking about members of XYZ corporation, always refer to individuals in the generic as "team members." We are an organization that prides itself on a team-oriented atmosphere and we want this to convey in our communications

Outside Organizations

Whenever outside organizations are referenced, please include the full organization name the first time and then any official shortened form after that. If an official shortened form does not exist, do not create one. Instead, use the formal name throughout.

The Setting the Standard Campaign

Any communications that are part of the Setting the Standard campaign should refer to the campaign with correct capitalization: "Setting the Standard." Communications that are part of the campaign should only use the official campaign color palette and remember to highlight the high standards of our organization and our products during all textual discussions.

People for people for people. The XYZ Way.

STYLE GUIDE PAGE ON EDITORIAL STYLE

In the above example, you see a discussion of tone, specific references for how to talk about members of the organization, and guidelines for discussions of outside groups and the current promotional campaign. The above is an abbreviated look at the ways that organizations often set particular guides for how official communications are worded and how specific groups and processes are referenced. Depending on the extent to which an organization is looking to create a readily-identifiable voice, the choices and power of an editorial style guide can be limited or extensive.

Think about the style guide as the place where you'll make the tough calls once. Decide as a group and with the input of stakeholders what your official colors, images, approach to text, and all other design choices is going to be and then standardize them in the guide. The guide becomes the place that decisions are made and recorded. This can be especially powerful in settings where you're the leader of a team of writers and need to exert control without the need to micromanage everyone and everything.

Your style guide may not be finalized by the end of Phase 2, but you should at least get one started. As you go, update the version of the style guide and make notes as to what has changed in each version—this will give you a clear idea of what has happened and why as your project has developed.

PHASE 3: PROTOTYPES AND ITERATION

Once you've gotten to the point that you know your goals and have a concrete set of ideas for your audience that will be created with specific deliverables, you need to start prototyping and iterating. Having a style guide at this point can be valuable, but your guide can grow or come into being during this phase rather than before if your circumstances dictate that kind of workflow.

The goal of the prototyping phase is to get your deliverable created in a makeshift form that will let you test it and see how well it works and whether it is going to meet the expectations of those

involved with your project. There is often something quite different between pitching an idea theoretically and holding that idea in front of you or seeing the idea on a screen in the case of a digital deliverable. By putting everything together, you get a clear sense of what your design will look like and work like.

Your prototyping phase should also include some testing, ideally. You'll want to see how your design works and whether you get the impact you actually planned for with use. You can do this using some of the methods discussed in the next chapter.

Once you've got your design tested, you'll want to iterate from the original design where needed. Don't be afraid to rework a design that isn't coming together or getting the reaction you were hoping for. The prototyping phase exists so that you can get a low-stakes reaction to your planned design without having to commit to a full production run of the deliverable. Much better to rework a prototype than to end up with finalized deliverable that just doesn't work out.

EFFECTIVE TIME USAGE AND TEMPLATING VS. TINKERATING

One note that is of the utmost importance when you're working on prototypes and other designs: guard your time vigorously! You will need to guard your time, more often than not, from yourselves. That may sound weird, but bear with me. Often times when you're doing a design project, especially one with fancy elements, you can get caught up in the what-if's of it all. This gets even worse when you're building your templates and designs in the software you'll publish with final deliverable with. To avoid time wastage, there are a few things you need to keep in mind: the Cake Method and Templating vs. Tinkerating.

First, let's cover the Cake Method. It sounds silly, but it is the product of my having been involved in two birthday cake fiascos in a row in which a fondant-centered design was scrapped at midnight in exchange for cupcakes or something less amazing. It was also influenced by two student projects two years in a row that self-immolated due to 90% of the time on the project being spent on a design element that simply never came together. I'll explain.

When you are working on a major project, many times the fancy little bits get your attention. You end up trying to tweak the one cool idea that you have about the design, and that ends up taking all of your time. It might be a logo. It might be a cool graphical effect on a website. It could be a fancy infographic idea you have. It could be fancy animations and graphics on a Power Point or Prezi. In the end, the amount of impact that cool bit has on your final deliverable is fairly negligible, but it's just so darn cool that you spend a massive amount of time on it, resulting in a project that has a cool graphic but no real content. It's like someone asked you to make a cake and you brought them a custom sculpted or 3D printed cake topper and a box of cake mix.

The Cake Method attempts to help you work through your design woes by breaking up your time into chunks of content that mirror the construction of a cake, sorting the content into what has to be there and what would be nice to have. The base of a cake is the actual cake itself—you need cake for a cake, right? Next, you have the bare minimum of decoration, usually some sort of icing. After that, you might have decorative trim that really brings the cake into acceptable territory. Finally, you have additions that make the cake fancy such as various scenes that might be built on top like a

construction site for a kid that loves heavy equipment.

The idea behind this breakdown is that you create tiers of importance with your content, tiers that align with the most basic cake versus the final tier of fancy decor. You organize your content into each of these tiers, and then you work through each one of them in order. You're not allowed to work on the fancy final stuff until you've finished everything underneath. That way, you don't end up with fancy decorations and no cake to put them on, metaphorically speaking. See below for a chart than can help with this breakdown:

Tier	Goals	Content	Time Spent
Base			
Essentials			
Expected Accents			
Final Polish			

A TABLE TO BE USED TO ASSES OBJECTIVES AND TIME ALLOTMENT

To use the chart, you'll want to break down your project into four basic tiers, just like we broke the cake down into the bare minimums, the essential elements, the expected accent decor, and any final polish and fancy elements. The base tier is the absolute minimum for your document. This may well be the actual text elements that you need to generate to fill the text. This work isn't sexy, but it simply has to be done and can truly suffer if you rush it. Next, you have the essential elements that would be needed—this can vary from design to design. It might be a series of simple templates that arrange things differently in a large campaign, or in a large document it might be the chapter breakdowns and sections and sub-sections. Next you have the expected accents; this might be something like color-coded headings and things along those lines in a large document. Finally, you have the final polish tier that includes the fancy elements than can take a large amount of time. This might be something like a heavily designed logo element or a complex infographic-style graphic that doesn't have to be in the text but that makes the text more understandable.

The goal behind all of this is that you'll have a fully-functional document that you can add elements to gracefully by the time you get to the final polish stage. It also recognizes that the fancy elements that we often want to focus on can take an inordinate amount of time, time that is fine to spend if we have managed to complete our text. You can't build a text around a complex element that you may not be able to pull off. You build the text first and then see if you can pull off the extra element.

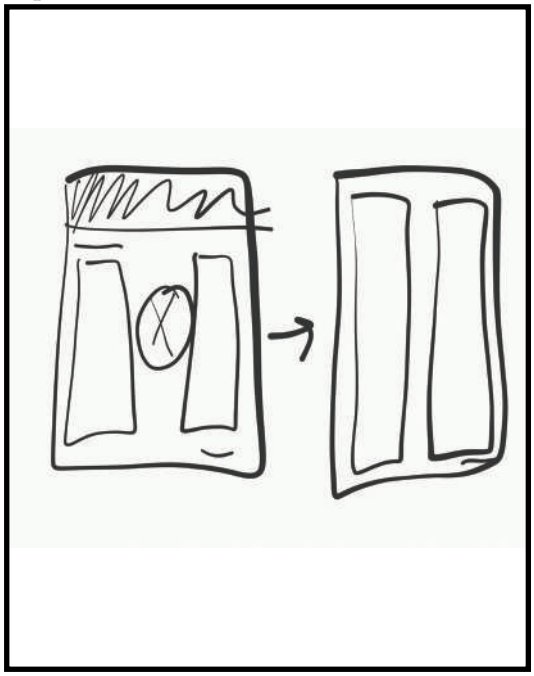
Sometimes your text is the fancy decorative element, or you have a design that is entirely driven by a fancy design. That's okay. In those cases, you spend more time on the design element. It is the cake in that case, not the final topping. The goal here is to arrange your steps in the project by their importance and to spend time on what has to be there before spending time on things that would be nice to have.

One additional tool that can be useful when managing time is making a distinction between Templating and Tinkerating. When you work on a project, you often need to come up with templates and designs that you can work through and design around. What I suggest, every single time, is to design your projects with pen, paper, and colored pencils first. Do not use a design-oriented program or code (in the case of the web). Do. Not. Do. This. You'll more likely than not end up wasting time.

The problem with designing with a design program is that you have an infinite amount of tools available to create your design, and you often end up playing with those tools rather than working on your template. I call this Tinkerating because you're going to be tinkering as much as you are doing anything else. Now, that isn't to say that playing with the design program is bad—that is one of the ways you get better at the program or at coding in the case of the web. But, with that said, you don't need to be playing in the program when you're thinking about a design. You can prototype a design much more quickly with paper and a pencil than doing the code or design work behind it. Finally, working with the design program encourages you to put in flashy elements and to spend time making things look nice when you're not even committed to the final design you're building! Think back to the Cake Method—this is not the way you want to spend your time!

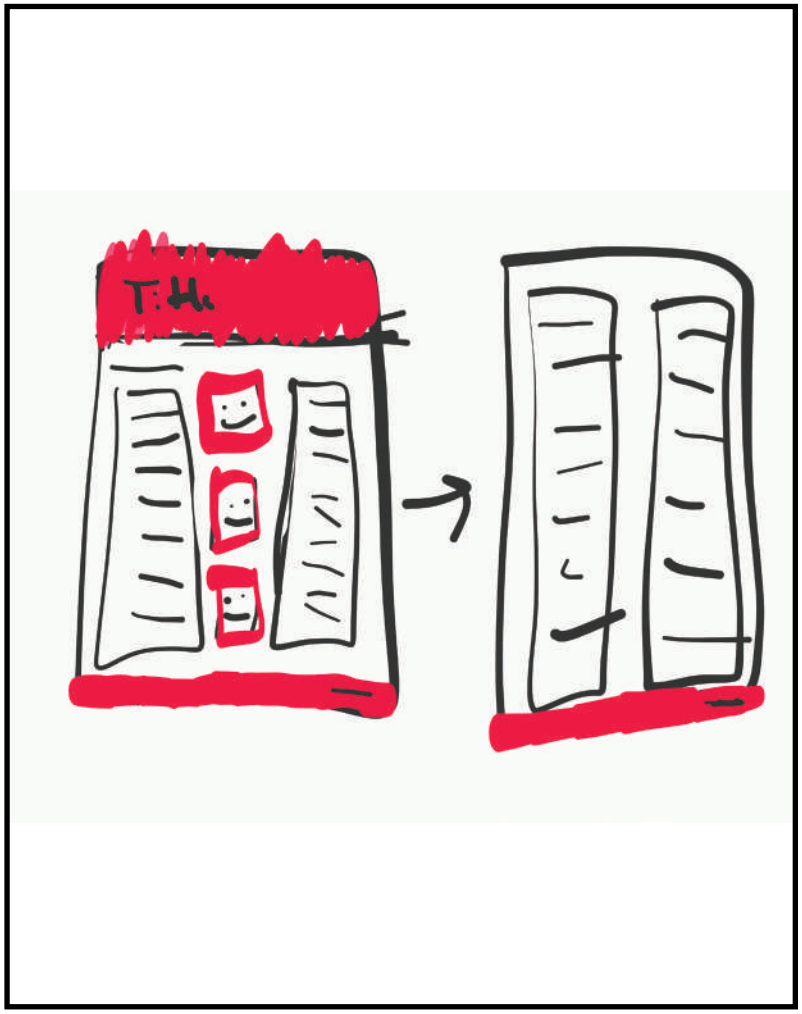
When it comes to templating and thinking through designs, the fast route is almost always the best. A quick sketch can help you think through a design quickly without too much trouble. When I'm teaching or designing, I usually try to do lots of stuff like the example here:

In the example on the right, I've got a brief template for the front page and the body of a newsletter. You have a colored heading on the first page, then two columns with an image in between. You also have a small element on the bottom corner. The main body is two major columns with the shared element in the bottom corner. This is a fairly simple design, and it helps me see issues with layout quickly. You may notice the image looks weird between the columns, so I need to rethink that. Drawing it out allows me to see spacing issues quickly without



AN EXAMPLE TEMPLATE SKETCH

getting into the weeds. If I wanted to go a bit further, I could embellish this all with colors to get a better sense of what I'm doing:



A SECOND TAKE ON THE TEMPLATE SKETCH

Here you'll see I've colored in the top section to give a nice colored header, I've added in a title to show where that would be in black, and I've redone the images in the middle to better use the space and tried out using red for the bottom element and red frames for the images. After seeing this, I'd likely switch to black for the images, but I like the red elements (though I might add another on the top on the second page for symmetry). Again, this has taken me just a minute or two and I'm already working through the design without having to worry about getting things lined up perfectly or getting the colors or something else right.

Use your time wisely—guard your time from the demands of others and from your own fancies. The best design is the one that gets finished and out the door, not the one with the fancy logo that never gets the polish it needs because all the time was wasted on the logo and not the actually contents of the deliverable. Use the Cake Method, avoid Tinkerating, and do your templating work as quickly and directly as possible. Don't commit to spending real time on a design or layout until you're sure it's ready for that investment of time.

PHASE 4: RIGHTS AND IMAGES

When you get ready to move towards publication, you should make a check that you have the rights to all content and images used. In the case of content created outside of your group, realize that in the US that any content created by an author is immediately copyrighted at the point of creation. Without explicit permission, you cannot use that content commercially.

Usually the content that ends up requiring that you source rights will be images or music. In these situations you will need to identify who holds the rights to the content you need and get permission

from them. The rights holder may not be the person who created the content originally, as in the case where the rights have been sold to another individual or organization.

If you need to get high-quality content for your deliverables but don't have resources available to create your own, you should investigate stock photo services that often have a range of photographs available to meet most generic project needs. In the case you need something specific, you may well need to generate content yourselves or pay someone to do the work professionally.

There are limited open-source and copyleft content sources that you can use to get free content, but as mentioned elsewhere in the text these sources can be sketchy at times and sometimes come with explicit limits on commercial use or with clauses that would then cause your own work to be open-access or copyleft. In a corporate environment especially, these types of constraints are deal-breakers.

PHASE 5: EDITING FOR PUBLICATION

Before you start the publication process, you will need to get a final edit. The rule of thumb with this type of work is to always base this editing off of a final proof. You need to see the final proof and edit from that in order to get a full sense of what your text will look like and to identify errors that will have cropped up in the production process. This type of editing is different than the standard editing that might come into play when you're working through the prototyping and iteration phase. You will want to have a settled text that is ready for your final audience and publication when you start your final editing pass. The goal in this pass is to identify any missing content, any mismatches between your design and the final proof, and to catch any mistakes previous passes missed.

Remember that editing before production is a risk-mitigation strategy. Any errors you can catch before you go into final production will prevent costly and potentially embarrassing mistakes where you have a final run with glaring errors throughout. It costs much more money to pulp an entire print run than to reprint a proof.

In particular, focus on the colors, the quality of images, the location of content on the page, and other major features that can only be assessed once the deliverable has been put into its final form. You don't want to end up with images that are too pixelated or blurry or pages that are aligned too close to a margin for readability.

PHASE 6: PUBLICATION

When you've reached the publication phase, your job is to make sure you get the quantity of deliverables you need to the folks who require them. As a team, make sure that you understand what has been requested and when. Having a great project doesn't matter if that great project doesn't get to the folks who are supposed to use it. Double-check your numbers, your delivery mechanisms, and your timeline.

Finally, take some time to look over the final deliverables. Even with a closely monitored proofing process, there can be errors that happen. Your partner for publication may have gotten colors wrong,

used the wrong material, or cut things wrong in the case of a design with a bleed. Double-check all of this. Just because your proof was awesome does not mean that you final design will be awesome as well. Mistakes happen.

CLOSING IT OUT

The above is just a framework that you can use to think through the process of getting a project from start to finish. You don't have to take my method as the Truth, but instead I offer it as a suggestion and a system than can help you guide a project. You'll want to come up with your own system that integrates the overall writing process that we've covered previously, the process of designing visuals and documents, and the project timeline to get things done.

When it comes to technical writing, we deal with people and conditions that change over time. The one constant is that things will change. In these situations, what can be useful is not a concrete way of doing something every single time, but instead a method of going about doing something. If you have a method of figuring out how do something, that will serve you well when the thing you're doing changes and you're left figuring out how to adapt. Getting too wedded to a specific step-by-step specific implementation of how things are going to be can be dangerous because things do and will change. But, if your process is an open one that makes general moves and asks open questions rather than setting specifics, you'll find that you can work through changes with less stress because you're not tied to a specific way of doing things that is threatened when the context shifts.

CHAPTER SEVEN:

RESEARCH METHODS FOR TECHNICAL WRITING

Welcome to the end of the book. This is a weird sort of chapter, unlike any other chapter in this text. You may well have come here at my insistence from an earlier section, so let me explain how this all works.

In this chapter you'll find five or so different segments, each focused on giving you a loose understanding of a particular research methodology. In the first draft of this book in particular you'll find that these are general treatments rather than super-specific ones. The idea behind this design is that you'll be provided with the fundamental information you'll need to carry out these research methods within your technical writing classrooms, and that with the help of your instructor you can investigate these further, or you can research them further on your own.

Each one of the methods here could, and does, have entire books dedicated to their practice, so keep that in mind as you read. Additionally, I'm not offering by any means a definitive approach to any of these methods. Instead, I'm attempting to provide you with a general understanding of how you can use them to do original research for your technical writing projects.

In the following sections we'll cover Interviewing, Talk-Aloud Protocols, Card Sorting, Observation, and Participatory Design. To get a brief window into each, below you'll find a brief summary of what the method does and why you might use it:

Interviews:
Interviewing is about getting information from people by interacting with them. This can be on the phone, online, or face-to-face. The goal here is to talk your way into understanding a situation. Interviews can be useful to get a rich understanding of your audience or a situation, but take planning and direction to succeed.

Talk Aloud Protocols
Talk Aloud Protocols, or TAP are used to get information from a user while they're using a system. They can be extremely helpful to identify when things break down during use, but they do create some artificial results from time to time. A bit of work is involved, depending on how you document things, but TAP can be essential in figuring out a breakdown in workflows.

Card Sorting
Carding sorting is a powerful method where you use cards to create categories with your users. This sorting can be useful to help you build a system of categories or to test the effectiveness of an existing one.

Observation
Observation is exactly what it sounds like, and differs from TAP in that you aren't going to necessarily be working with your users or even letting them know what is going on. You're observing and making notes from your own point of view.

Participatory Design
Unlike the other approaches, participatory design is more of an overall approach rather than a specific method. Participatory design involves getting your users involved in the design process and giving

159

them power and agency. We'll discuss some basic tips for this.

Going forward, you'll find each of these approaches has a write-up that will be helpful in guiding your work. You'll want to decide which one makes the most sense for your situation.

DOING RESEARCH WITH PEOPLE

Before we go further, I want to bring to your attention a crucial aspect of this work—you will be working with and researching people. Unlike doing scholarly work on existing texts and journals or even chemicals, working with living subjects, and people in particular, is tightly controlled at the university level. Your university likely has an IRB, an institutional review board, that will govern your official inquiry to create new scholarly knowledge. The goal behind these processes is to protect the folks you're researching from harm.

In the private sector, there aren't as many controls on researching with people, and so the primary goal that you should strive for in your research in these cases is consent and transparency. You need to make sure folks know what is going on and what you're doing and that they agree with you and your goals and methods. Research should help you out, yes, but it should also at the very least do no harm to those you work with. If you're researching folks, they need to know and they need to consent. Anything less is unethical. Yes, you may need to hide specifics about which particular design they're working with, but they need to understand what is happening and what you're going to do.

In particular, you need to guard personal information—anything you collect needs to be anonymous and needs to be impossible to trace back to your participants in a way that could cause them harm. This is your duty to the folks you research in private settings. In addition, you need to make them aware of how you're taking notes/recording content and how you'll store that data and anonymize it as needed.

INTERVIEWS

One of the most basic approaches to doing user research is the interview. Interviewing may very well be the most difficult of these approaches to research because you need to prepare fully and act with purpose in an interview if you plan to get any sort of useful data out of your time. In this section we'll cover the goals of an interview, strategies for carrying out an interview, and approaches to recording data from interviews.

GOALS OF THE INTERVIEW

When you do an interview, you are getting an unique chance to hear from someone in their own words what they think about a given subject. With that said, the person you're interviewing also knows this, and sometimes will self-edit to present what they think you'll want to hear or what sounds like the best choice for a given situation. So, interviews are not without their risks and potholes to avoid.

When you plan an interview, you need to know what you're hoping to get out of the process. You can't simply go into an interview and let things develop—you're going to waste your own time and that of your subject(s). Instead, think about what you want to know. Do you want to know about a

specific experience or a particular text? Do you want a broad overview of how a workplace functions? Carefully consider your goals and your scope of questioning. One interview shouldn't do too much or too little.

Time and timeliness also comes into play with interviews. For example, email interviews are notorious for dragging out into infinity with folks simply ignoring or putting off the interview and questions to spend their time elsewhere. Think about how much time you have and what your schedule looks like. Align the type of interview you want with your goals and your timeline realistically.

STRATEGIES FOR CARRYING OUT AN INTERVIEW

Interviews require a strategy on your part to be effective. Not every interview subject will have the same level of comfort and willingness to share. At the same time, they may not even understand your questions if you pose them in a way that is foreign to their own terminology and understanding.

First and foremost, you want your subject to feel comfortable talking with you. Many times this is a matter of preparing the proper location and the proper setting. Doing an interview in someone's workplace or workspace in particular can be challenging because the bustle of daily work can interfere with your work and intrude or shorten your interview. Your demeanor and your dress also come into play—you don't want to be too dressy or too casual compared to your subject. Ideally, you'll be in the same ballpark or slightly more dressed up on a scale of casual to formal.

Besides location and your demeanor and dress, you'll also want to consider the way you ask questions as it relates to subject comfort. Your questions shouldn't be too accusatory or aggressive if you're wanting to keep your subject comfortable. At the same time, they should not be too personal or sensitive. Many times folks will say more than perhaps they even meant to in an interview setting, and you want to guard against asking questions that prompt them to share things that are too private for the setting. (The same advice usually goes out to teachers who ask for personal essays).

Next, you want to consider your questions and goals. When you ask someone a question in an interview, the question should be crafted to get the information you need. Close-ended questions that terminate with a simple yes or no answer can be self-defeating in this arena because you're not going to get the valuable insight and elaboration from your subject that you need. Interviews are valuable because you're getting a very specific set of information about a subject, and a series of yes and no answers is not that.

When crafting questions, try to prompt discussion by your respondent with some direction. You can vary the level of specificity as needed and to keep things fresh. You might ask some entirely open-ended questions like, "What do you think about this document?". You could also ask fairly specific questions like, "How effective are the headings and subheadings in this document, and how might you change or improve them—if you would change anything at all?"

Remember with questioning that your goal is to get information from the person you're working with to help you with a particular technical writing project. Write questions with that project in mind and your goals in mind. Don't waste your time and your interviewees' time with anything off topic or irrelevant.

Finally, set some standards for your interview from the get-go. Let your subject know what you're going to discuss, the types of things you're going to ask, and the length you're aiming for. That way, they don't spend their time second-guessing what is coming next or looking at the clock. By being upfront about all of this information you set yourself up for success by making the process itself less of a worry to the person(s) involved.

APPROACHES TO RECORDING INTERVIEWS

It is worth noting that they way you decide to approach an interview's recording can impact the feel and the response of the interview. You'll want to make sure your interviewee understands they are being recorded if you make use of any mechanical means to record the conversation. Often you may find that video cameras have a tendency to make folks uncomfortable in a way that an audio recorder does not. In cases where you can't make use of either of these, you will want to transcribe yourself, noting important information.

If you opt to take your own interview notes, please realize that this is a skill that is built over time. You need to have a real sense of what is important and what is not, as well as a good system for shortening what you need to write down. Practice more than a little before trying this with an actual interview you're running.

Be aware that if you take the time to note something that happens in the interview and you make notes as if that something is important, you can skew the rest of the interview. Everything you do will impact the way the other party experiences the conversation.

Finally, if you are going to be using anonymous data, you will need to transcribe the interview recordings and anonymize them and then destroy the originals. Voice recordings or video are not anonymous and if you've promised that to those you're working with, you'll need to make sure to honor that promise.

TALK-ALOUD PROTOCOLS

Talk-Aloud Protocols, or TAP as we'll refer to them in this section, are a useful way to get a window into what is happening when someone is using a service or document. In the protocol, you ask a user to perform a given task while talking aloud their thought process. The TAP focuses on figuring out how folks interpret what is in front of them and the strategies they use to navigate through a document or service. There is some element of artificiality to TAP because of the self-filtering that happens when your participants talk aloud, and there is also a level of hyper-focus that wouldn't exist otherwise. With that said, the approach can be extremely useful to figure out how well folks can find a particular bit of information or operate with a document or website or service.

STRUCTURE

Usually a talk aloud protocol happens in a controlled environment where there are recording tools available. Using a PC, you can often make use of a webcam to track the focus of your participant while they are looking through the text that you've chosen or a website. Using a TAP is very common in testing websites in particular.

The TAP is oriented around a series of tasks that you have chosen for your participant(s). You might ask them to find a bit of information in a website or document. You might ask them to finish a task like registering for a course or event. You could even ask them to locate an item in a store. The task will depend on what you're hoping to find out.

As the participant performs the task, you'll ask that they verbalize their thought process. You may find it useful to model this for them first. The goal is that as they're searching through a site or document that they'll explain the rationale behind where they are looking and what they are doing. This type of talking can be useful because it can at times provide a window into the way your audience perceives your text or site and allows you a window into the framework they use for navigation and value making.

In general, you'll want to allow your participant to do their own work, though you may need to prompt them with the next step of your protocol as you're going through, or you may need to assist them if they get frustrated and stuck. The goal here is to keep getting information from your participant, not to make them hate the process and experience.

TECHNOLOGY

When you're carrying out a TAP, you'll be able to use any number of technologies to assist. Some suits of software are specifically designed for TAP work, including Silverback for Macs. You may also use screen recording tools to track what is going on, or screen casting software to capture both the screen and the participant. In remote research you can often use services like Skype with video chat and screen sharing to see both the participant and your target text as they navigate it. You can also record someone in a physical space if they are navigating a place or a printed text. This relatively flexibility via technology makes TAP work a great choice whenever you need to know how someone would use your text or site or when you need to figure out why folks are getting to the wrong place.

INTERPRETATION

When you're watching a TAP or reviewing the TAP after the fact, you can interpret data from any number of sources. First, you can simply watch the eyes and progress of your participant for valuable information. Where do they look first? What is their natural first choice to solve an issue? Is this the same first choice you'd assumed they would make? Second, you can listen to what they're putting forward as their logic of navigation. Ideally, they'll explain where they are looking and why. You can see if this logic matches up with the logic of your text and whether there needs to be a change in the text to match up with or defeat their logic's appropriateness. (For example, someone might misread a term on your site and use faulty logic from that misreading to take them down the wrong path. In that case you might want to alter the terms on your site so you don't accidentally mislead folks with terms they interpret differently than you intended).

CARD SORTING

Card sorting is a fascinating approach that you can use with minimal technology to figure out how your participants use terms and group them together. The approach can also be a powerful tool for sorting in situations where you need to think collectively, but we'll primarily focus this discussion on using card sorting as a testing method. Card sorting is fairly literal in its meaning—you use

notecards or something equivalent while asking users to sort those cards into various stacks that go together. The goal is to figure out how folks sort, and you may even go further to ask them why.

Card sorting can be guided or unguided, meaning that you can create your own categories to allow folks to put content into, or you can give them a stack of cards and ask them to create their own categories for the content/terms that each card represents. Each approach as value and gives you a different insight into what is going on with your terms/categories.

STRUCTURE

Usually a card sort is structured around a stack of terms. The source of the terms can vary, depending on what you're hoping to find out. For example, if you have a menu system for a website and you want to know how folks would categorize your pages, you can use a card sort to figure out how they'd lump content together in their own categories. You can also use card sorting to figure out if your existing system makes sense, having folks place each item in your menu system into the top-level menu headings, testing to see if they follow your logic or another logic.

A card sort can be entirely focused around sorting, or you can include a component of explanation. You may simply want folks to organize cards, but you can also include the ability to name stacks when this is happening in an unguided sort, giving folks the ability to create their own categories rather than just stacking content in the same pile. In addition, you can ask folks to explain the choices that they've made once the sort is over, which may give you additional insight into the logic they used to make their choices.

Face-to-face card sorts are the norm, but you can also use electronic services to carry out a card sort. There are any number of services online that will allow you to create card sorts, and you can create your own ad hoc sort using a database program like Excel or the equivalent. In that type of scenario you would simply list your terms and ask folks to put them into columns using copy/paste.

In any scenario, it is incredibly valuable to get the actual feedback from the user after they've done the sort, so whenever possible try to get your users to explain after they're done why they've sorted the way they did. It may be best to ask them this after rather than during—you don't want to push them to overthink their work.

INTERPRETATION

The interpretation of a card sort closely follows the way you've set it up what you hope to learn. If you're giving folks a set of subjects and asking them to place them in an existing set of chapter headings, you'll likely want to try and see what is different between the logic the user makes use of and your own logic. This can be helpful when you're trying to build a table of contents for a manual or other document that will be useful for reference. In scenarios where you're attempting to make groupings, you'll want to see how folks place the content, and you'll want to pay special attention to content that doesn't seem to fit anywhere at all. This can be a sign that your content is misnamed or doesn't belong in the existing framework; it might also mean that your users simply don't find much value in that content or really understand what it means or why it is there.

Again, you'll want to think through your card sorting as a way to find out how folks view categories and terms. This can identify terms that are misunderstood, terms that folks see as belonging together, and generally help you get a better handle on the taxonomy of a given project. Design a sort around something you want to learn; you'll find you get better results with a goal than simply performing a card sort to perform a card sort.

PARTICIPATORY DESIGN

Rather than a particular method, participatory design is an overall approach to the idea of document design and composition. Instead of creating something and then bringing users in to test what you've created, participatory design as an approach asks that you bring users into the very act of creation. This is a highly complex approach and one that has supported decades of research from any number of technical writing and usability experts. As such, don't take this section in our text to be definitive by any means, but rather as a very basic introduction to some ways you might want to begin to think about bringing folks in to participate in the design of projects that impact them.

First and foremost with participatory design, you want to keep in mind your ethical obligations to shield participants from negative consequences from their working with you. Participatory design asks folks to give you honest feedback on the way things work and how they'd like them to work. Sometimes, this information can come from someone who is lower in a power structure and end up getting relayed to someone higher up in that power structure, creating an awkward situation where folks criticize their bosses openly, creating a space for retaliation or resentment. Keep this in mind and design your participatory design around protecting those who would give you their feedback and time.

STRUCTURE

With participatory design, your goal is to bring someone into the design process so that they can influence it. The idea here is that the folks who actually do the work, who actually are working in a situation you're designing documents around, that these folks know the process and the variables better than anyone else might. They know what blind spots exist and what existing documents fail to do well or simply get wrong. As such, you want to bring them in at an early phase, allowing them to shape the fundamental conception of what the text does and why.

One strategy can be to start with the existing document and simply ask folks to tell you what it does well, what it doesn't do well, and what it simply gets wrong or omits. This can be a useful space for incremental change because you're starting with an existing deliverable that can be altered as needed to fit the needs of the folks actually working with it on a daily basis. This can also be a useful task to bring to folks that use a document that has been created elsewhere, such as folks creating financial reports from documents not created by their team. Documents can cause issues for the folks creating them or the folks using them.

Another strategy that can be helpful is to simply start from scratch and ask the folks you're working with what they do and how documentation can assist them in the work they do. What do they need to record? What do they need to pass on to others? This can at times be useful to discuss when you

have multiple levels of folks in the same room, allowing them to see how different folks in the same organization need different things from documentation and from the workflow of others in the same company or group. Things that seem arbitrary at one level can be crucial at the next, and learning about the importance of data to folks at other levels of an organization can be helpful to those who generate text that seems meaningless to them.

At the end of the day, there are innumerable approaches to creating participatory structures for document design and service design. The above are two simple approaches that you can start with in your own work, but they are simply suggestions. There is a massive body of research out there that I would encourage you to pursue if you find yourself drawn to this research paradigm.

INTERPRETATION

When interpreting participatory design, please be aware that different users have different values that they give to documents and information. Depending on where someone is in an organization they may undervalue or overvalue information, or simply ignore it or not know it exists. Expertise within an organization can be hidden by existing documentation and ways of doing work. As a technical writer, you need to be aware of these issues and tread carefully. In some cases there can be valuable work that is getting done that documentation doesn't capture—you can help make that visible. In other cases, there can be work done for no reason and you can bring that to folks' attention.

Be aware that when you work participatory projects that everyone has a political agenda to push and that you need to keep the overall power structure of the organization and your role in mind when you interpret data. Don't do stuff that will get folks in trouble, and keep in mind that entire organizations are built around document workflows and that emphasizing one group at the expense of another can create tiffs and rifts.

TECHNOLOGY AND RECORDING

Be extremely sensitive when using technology and recording tools with participatory design. Realize that all of the conversations you have are part of larger power structures that can get those who participate into trouble if the information they volunteer isn't well received or is taken out of context by those above (or below) them in the power structure.

OBSERVATION

The final research method that I will share is observation, one of the simplest and most awkward of all research methods, depending on the implementation. Observation is simply that, observing folks using documents or working in a given workplace. Sometimes bordering on ethnographic research, observation can be a tool that you use to figure out how folks are working and using systems and texts without intruding into their workflow. You simply sit back and observe the situation, taking notes of things as they happen.

In public scenarios, observation can be extremely unobtrusive in that you can sometimes simply blend into the background. You may, for example, want to see how folks navigate the signage in the campus cafeteria. You could simply park yourself near the front of that cafeteria and observe patterns and when folks stop to interpret things. Obviously this would be more useful when you have large groups of folks using these facilities for the first time, such as during orientation week or when a

visiting group are present.

In more closed scenarios, observation can involve permission to simply sit around and record what is going on. You will likely want to keep your recording to written notes, and you may need to get your notes checked with those that you're working with before you use them or take them out of the location, especially when sensitive information can be involved.

INTERPRETATION

Observation excels at helping you understand how a process or system actually works when folks work through it in a natural way. By casually observing a situation, you can see how folks navigate a space or document and when they become frustrated and at what rate. In private situations, you get a better sense of how work pulses and flows in a given location and the types of interactions and work that happens in a given space. Each type of information can be valuable for you as a technical writer because it gives you even more information to take into account when you consider the choices you make in your own designs and documents.

RECORDING AND TECHNOLOGY

As noted above, be aware that sensitive information can be relayed in a workplace or even in certain public venues. Take care that you're not going to be recording in a way that will disrupt workplaces or violate privacy. You may be asked to leave a room during a private observation, and you may need to ignore anything you hear in a more public venue if the content that is being shared would be embarrassing or otherwise troublesome to record and share. As I mentioned previously, you may want to default to written notes with observation, allowing you the chance to be your own editor as far as what is recorded and what is not. In addition, you should check with those you will be observing to see what types of sensitive information you should go to great pains to ignore or not record.

SOURCES

Unless noted below, all images and charts and other multimedia components of this text are created by the author and authorized for this text. Scholarly and popular press sources specifically referenced and cited in the current version are as follows:

Kostelnick, C., & Hassett, M. (2003). *Shaping information: The rhetoric of visual conventions.* Carbondale: Southern Illinois University Press