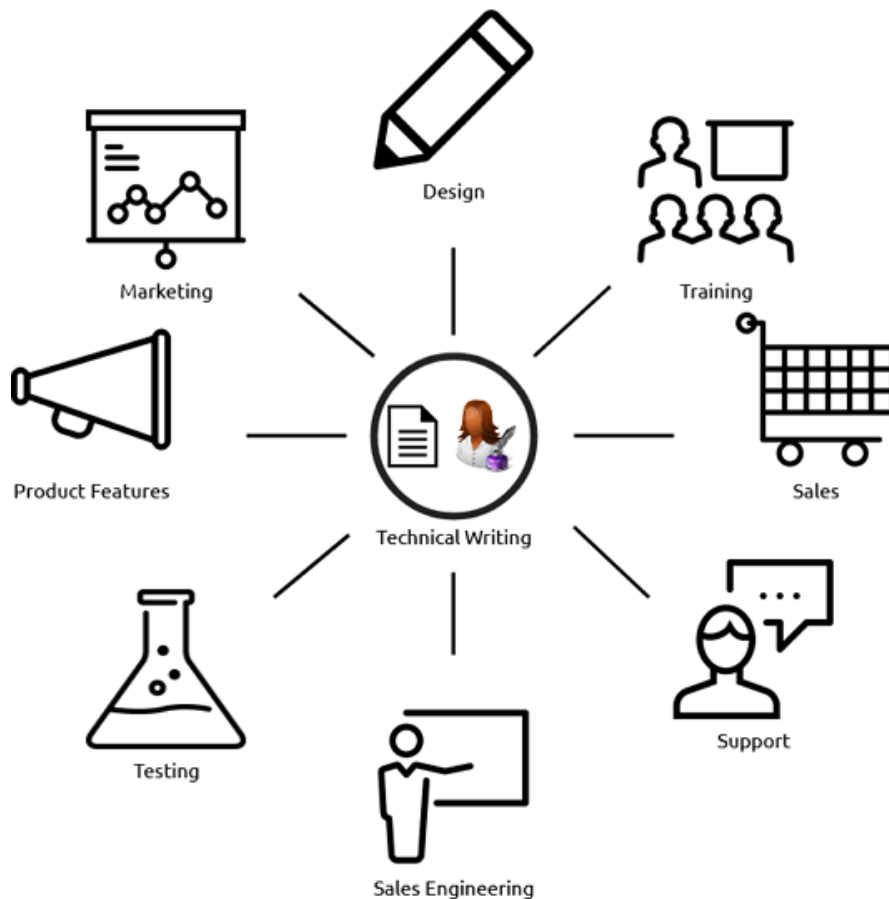


# Lesson 1: INTRODUCTION. THE TECHNICAL WRITING PROCESS.



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## INTRODUCTION

### What is Technical Writing?

Technical writing continues to be a highly coveted skill in the professional workplace. Demand is expected to grow at 10% from 2014 to 2024. This is faster than the average for all occupations.

In this lesson we will show you an average day for a technical writer, how to improve your skills when writing complex documents, and why the field is quickly changing.

The traditional definition of technical writing is: “Technical writing is the practice of documenting processes, such as software manuals or instructional materials. Traditionally, it was limited to user manuals of some sort”.

Frankly, this definition has become outdated. Technology moves quickly, and lexicographers are often left playing catch up.

### New Definition of Technical Writing

Today technical writing encompasses all documentation of complex technical processes. It includes reports, executive summary statements, briefs. Any time technical information is conveyed in writing at work, it is, by definition, technical writing.

This can include high-tech manufacturing, engineering, biotech, energy, aerospace, finance, IT, and global supply chain.

The format is no longer bound to lengthy user manuals. Technical information must be distilled and presented unambiguously. This can come in the form of technical reports, emails, policy, briefs, and press releases.

**The bottom line** is if you work in a technical field, you are most likely performing technical writing.

### How is Technical Writing Different Than Business Writing?

The new definition starts to sound a lot like the definition of business writing. Be warned, technical writing is not exactly the same as business writing. Business writing is a broader category. It can be argued that technical writing falls under business writing. It deals with many of the same topics and documents.

Yet the process and outcomes of technical writing are unique. So, let's we will explore exactly what a technical writer does. And during the following lessons, we will review examples of technical writing and what you need to do to become a professional technical writer.

## What Is the Job of a Technical Writer?

The job of a technical writer will differ depending on the industry and company that they are employed with. They often work on multidisciplinary teams functioning as the mediator between the more technical staff and less technical reader. They will work closely with these teams to develop a communications strategy. Their responsibilities often extend beyond just writing. They must understand the entire project from high-level goals to the intricacies of implementation.

## Documents can be Written by a Technical Writer

Your job and industry will dictate exactly what type of materials you will write. Here is a list of the documents you could be expected to write in a technical manner:

- Technical Reports
- Emails conveying technical information
- Memos
- User Interface Text
- Guides and User Manuals
- Press Releases
- White Papers & Case Studies
- Executive Summaries
- Balanced Scorecards
- Product Descriptions
- Proposals
- Reports
- Websites
- etc.

At first, it may be overwhelming to see so many different types of documents. But each document uses a similar writing process and draws on an established set of skills. If you develop a process, you can apply it to any technical document you are creating.

## Skills Needed for Technical Writing

To be a successful technical writer, there is a core set of skills that you will want to master. Here are some of the most common skills needed to be successful:

### Research

Research is one of the first steps in technical writing. After you have an assignment, you will be responsible for collecting the data (numerical and non-numerical) and turning it into valuable information.

Research can come from a variety of places including:

- On-Site Data
- Interviews
- Online and Intranet Publications
- Libraries and Research Databases

After you have researched, you will need to synthesize and begin planning your document organization.

### **Audience Perception**

The technical information you research and gather has to be shaped for reader interest, understanding, and perception. Technical writers often have to communicate highly technical information to a non-technical audience. Therefore, an early step in the most effective technical writing process is analyzing your audience carefully so you can match information to their needs.

### **Communication Skills**

Communication skills are imperative to be a successful technical writer. You will likely be working with multiple teams and individuals from differing roles. Your ability to listen, record, and communicate will be crucial.

### **Technical Skills**

It is imperative that you understand the technical nature of the content you are writing about. It is difficult to clearly convey a concept that you have not mastered. Many technical writers have academic or workplace experience in the topic they are writing about and many technical writers have job titles of engineer, geologist, seismologist, financial analyst, or business analyst. They are employed in technical positions and have to summarize information cross-functionally to other areas of the company.

Technical writing is slightly easier if you come from the technical side and are learning to write. It is sometimes more difficult if your background is in writing and you are trying to learn the technical content.

### **Writing**

Excellent writing skills ensure your documents are easy to read and are free of errors. Writing encompasses many of the other skills on this list. It is important that you have the correct tone, style, and format for your document. Often these rules are outlined by the employing organization in a style guide.

## Document Design

You may be responsible for adding graphics to compliment your document. It is important that the graphics aid the reader in comprehending the information. Graphs, tables, and charts are commonplace in technical reports.

You will also need to be proficient in formatting documents. The formatting should be professional and aid the reader in navigating the document. Headings should be easy to skim, and the content should be organized logically.

A poorly designed document will make it more difficult for the reader to understand the content. Document design is a key aspect of technical writing.

## Fluency with Digital Tools

Today writers must use multiple tools during the technical writing process. This often goes beyond basic text editors. Technical writers are expected to be able to create graphics and annotate images and screen captures and extract data from Excel and convey that data in charts and tables.

### THE TECHNICAL WRITING PROCESS

The Technical Writing Process defines the five main steps in technical writing: Plan, Structure, Write, Review and Publish.

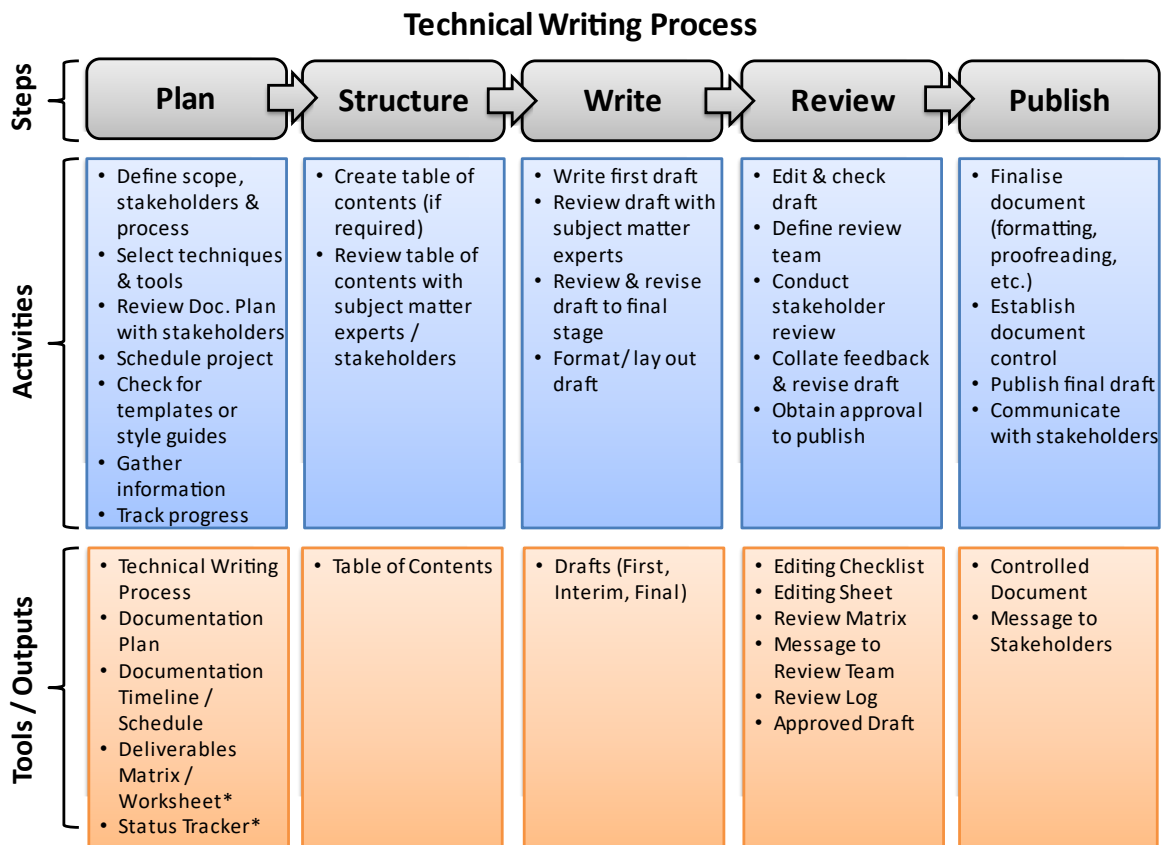


The process is supported by 12 templates, designed to help you execute the detailed activities in each step in the Technical Writing Process:

- Documentation Plan
- Documentation Schedule
- Documentation Timeline
- Deliverables Matrix
- Deliverable Worksheet
- Editing Checklist
- Editing Sheet
- Process Checklist
- Review Log
- Review Matrix
- Status Tracker
- Tech. Writing Process

In this part of the lesson, we will focus on the nuts and bolts of the Technical Writing Process, starting with an explanation of the Technical Writing Process diagrams. The diagram is key to the process, and it's the basis on which the five main topics – Plan, Structure, Write, Review, and Publish – are structured. It also

defines – and provides examples – of the type of documents that technical writers create in their day-to-day jobs.



### How to apply the process

The Technical Writing Process is meant to be modified to suit your project. This may involve adding, adjusting or removing one or more steps, activities or tools/outputs. Because of their high-level nature, I'd consider it very usual to actually remove one of the five steps. You might end up adding one or two, if you have complicated process. Every company and every project is different, so your process needs to reflect that.

The process is intended to introduce formality, structure and predictability into technical documentation projects. This comes at an upfront cost, of course – it takes time to create Documentation Plans and documentation Schedules. However, the benefits of adding structure quickly become apparent, as the project produces better quality deliverables in a more predictable fashion, and saves time by building in the correct checks and balances at the outside. It's important in modifying the process that you don't skimp on important aspects and controls that turn out to be critical time-savers or quality controls later on.

Plan contains a section on how to modify the Technical Writing Process to suit your project. This takes you through the steps involved in modifying the process and provides two case studies to illustrate how modification can work.

Technical writers often find that everyone (managers, project managers and subject matter experts) wants the highest quality content in the shortest amount of time. Don't be surprised if you get some pushback when you're asking others to invest their time in your process, for example by participating in planning workshops and review sessions. The art of technical writing is to do all this in a way that avoids cutting into the time requirements of others as much as possible, whilst extracting the maximum value. Accomplish this by being respectful with others' time and realistic with your requests, and using the Technical Writing Process to show your stakeholders that you're following a structured and disciplined methodology, with all the inherent benefits that can bring. If you've done a good job of tracking previous projects, you can even demonstrate that your rigorous planning and streamlined process can result in cost savings whilst improving quality and timeliness.

### How the process can benefit your project

The Technical Writing Process can:

- **Save time.** By providing an off-the-shelf technical writing toolkit for writers at all levels, particularly beginners, rather than investing time and energy in coming up with a process, methodology and tools from scratch.
- **Improve predictability of technical writing projects.** All too often, technical writing projects are ad hoc affairs, relying on a combination of experience and good luck to succeed. The Technical Writing Process takes away the element of guesswork, turning technical writing into a defined, manageable process, just like any other business activity.
- **Provide an agreed-upon content development method for a team of writers.** Managers of technical writing teams have the challenge of implementing consistency across their teams.
- **Focus on the audience (i.e., end user).** In a documentation project, focusing on the audience requires asking the right questions, such as: Who's going to read this document? What's the education level of the audience, and what are its top need-to-know priorities?
- **Decrease friction between the writer and the business.** The Technical Writing Process establishes expectations early on and ensures the documentation is meeting expectations by frequently iterating it through a process of reviews.
- **Be used by non-writers/newcomers to technical writing.** The material should be a conversational, easy-to-read tone that's accessible to beginner technical writers as well as non-writers. Technical terms are defined, and key concepts are illustrated with diagrams.

## What type of documentation does the process apply to?

The Technical Writing Process applies to the type of documentation written by technical writers, but it can be adapted to create a whole host of documents: project documentation, marketing collateral, training material, tender or bid documentation, and general business documents.

## What type of documents do technical writers write?

Technical writers (by definition) develop technical documentation: that is, documentation of a technical nature that assists someone to carry out a process or use a product.

However, there's no such thing as a hard line when it comes to what technical writers do. Technical writers are often asked to create or assist with many other types of documents, as the following table illustrates. This may include project documentation; general business documentation such as forms, templates and presentations; tender or bid documentation; marketing collateral; training material and e-learning modules.

The lines, in fact, are extremely blurred, with the spectrum of technical writers running the gamut from the highly technical – for example, ex-programmers or engineers- turned-writers who specialize in writing for a highly technical audience - to writers who prefer to work on the non-technical end such as creating training material or marketing collateral.

### DOCUMENT TYPE: DESCRIPTION

#### Product documentation

For the purposes of understanding product documentation, I've defined a product as any piece of hardware or software. Products can then be said to fall into two broad categories:

- **External products** are those that the company sells to make money for itself. Two examples would be a hearing aid (hardware) and a computer system to allow a doctor to tune the hearing aid for the patient's needs (software).
- **Internal products** are those that the company has acquired or developed for use within itself, such as an off-the-shelf accounting software package or a document management system the company has built.

Creating product documentation (particularly external product documentation) is often what people think of when they imagine what a technical writer does.

These types of projects are certainly enjoyable and challenging for technical writers to work on, as they can span the whole gamut of technical writing activities. For example, an external product documentation project might involve working alongside engineers and project managers within a product development life cycle; taking into account the views of marketing and product managers; assisting with product architecture, design, testing and verification; and facilitating the production process, e.g., preparing a user guide for printing by a commercial printing house.

Internal documentation projects usually don't involve such a heavy emphasis on the production process, as these types of documents are commonly uploaded to a company intranet or document management system, or printed on the office printers, rather than being commercially printed and shipped to customers.

**Examples:** User Guide, Instruction Manual, Help, Quick Start Guide, Quick Reference Guide, Release Note, What's New and so on.

### **Process and procedure documentation**

This extremely common category of documentation comprises any document that assists someone to carry out a process or procedure. This type of documentation is driven by a number of factors, or forces, which can be divided into two broad camps:

- **External forces** are imposed from sources outside the company (although the company may voluntarily sign up for them). Examples of external forces for documentation include management frameworks such as the software development life cycle (SDLC), standards such as ISO 9001, and laws or regulations. These forces impose hierarchies of documentation that the company needs to create and maintain to comply with the framework, standard, law or regulation.
- **Internal forces** are factors within the company that create a need for documentation. They typically include: an effort to maintain consistency or standardize processes or procedures, a change management exercise that requires personnel to be trained in a new process or procedure, succession planning (e.g., capturing the knowledge of a highly experienced member of staff who is about to leave), and the need to create resources for new starters.

Both of these forces (internal and external) are very common and, although this type of work is perhaps not particularly glamorous or everyone's cup of tea, it's a staple form of employment for many technical writers.

**Examples:** Procedure, Process, Operations Manual, Standard Operating Procedure (SOP), Policy, Work Instruction, Workflow, Process Flow.

### **Project documentation**

Project documentation is the content produced with every new project in a company or government department.

Typically, projects progress through a predictable series of phases (i.e., a life cycle) such as initiation, design and planning, execution, control and closure. Each stage in the project life cycle is supported and facilitated by documentation such as project plans, business requirements and technical specifications.

This is where technical writers come in. Although technical writers usually aren't directly responsible for authoring this content, they're often employed to assist with its creation through rewriting and editing; leading the review process; creating illustrations; participating in the development of audio, video or animation development; and performing document management tasks such as collating, organizing and publishing.

**Examples:** Project Plan, Test Plan, Business Requirements, Technical Specification, Test Script, Test Case.

### **Training material**

Creating training material is a natural extension of many technical writers' skills, although it tends to be an area of specialization. Writers who specialize in this field are called instructional designers. It's common for a writer involved in training material development to both create the training materials and deliver the training course, or at least to have some role in training delivery.

As you can imagine, this can be a challenging task, and standing up in front of a classroom is not for everyone. Technical writers who specialize in training material are often competent in adult education techniques, as well as the use of training software packages (specialized software used to create online tutorials, e-learning material, etc.).

**Examples:** Training Material, Training Module, E-learning, Tutorial.

### **Tender documents**

Tendering (also known as bidding or pitching) is the process of winning new work for a company. In the tendering process, a company or government department will typically put a large job (e.g., the construction of a new building)

out to tender, inviting companies to bid for the job, i.e., prove why it should be performed by them.

Numerous steps are involved in the tendering process. At a high level, the process usually starts with a request for tender and proceeds through to tender evaluation, selection of the successful tenderer and contract award and, finally, contract negotiation.

Each step in this process results in a smorgasbord of documentation. This is where technical writers come in, helping the tender or bid manager to create documentation, collate existing documentation that will be recycled for the tender, etc.

As with training material, this area attracts specialist technical writers, called tender or bid writers. This work tends to be a mix of technical writing and copywriting, often requiring knowledge of legal terms and conditions, and offering the writer scope to exercise creativity not often found in more traditional technical documents. On the downside, this type of work frequently involves very tight deadlines and a low margin for error.

**Examples:** Request for Quotation, Request for Tender, Tender, Presentation

### **Marketing collateral**

Although marketing collateral is most often created by the marketing team, technical writers also be involved in the marketing side of things, particularly when it comes to the technical facts and figures, such as preparing a technical data sheet.

As with project documentation, technical writers usually aren't responsible for this type of documentation, but they may be asked to assist with preparing elements of it for the marketing team, lend their expertise, or be part of the review team.

For example, a technical writer might be asked to pull together technical data for a brochure, data sheet or white paper that is used to show customers the potential capabilities of a new product, which will then be further word-smithed and designed by the marketing department.

Some highly skilled technical writers manage to successfully straddle the divide between technical documentation and marketing collateral.

**Examples:** Catalogue, Brochure, Data Sheet, White Paper, Case Study.

## General documents

And then there's everything else. Companies are veritable document factories, churning out page upon page of every document type imaginable. Although technical writers are usually employed to create technical documentation, it's common for technical writers to assist with the creation of general business documents such as newsletters, forms and templates too.

With these types' documents, the role of the technical writer will be highly variable, depending on the particular scenario. It may include planning, structuring and writing the document; editing and proofreading; checking for compliance to the corporate style guide; or simply styling and formatting the document into a company template or content management system.

**Examples:** Newsletter, Form, Template, Presentation, Report, Poster, Article, FAQs.

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