

IN THIS CHAPTER

- » Discovering who writes technical documents
- » Understanding how business and technical documents differ
- » Creating a portfolio and business cards
- » Learning about different career trajectories

Chapter **1**

Working as a Technical Writer

I didn't go to film school. My grandpa always says just watch a lot of movies. He didn't go to film school; he went to theatre school. It's interesting to learn about the technical side of it, but I think it's more important to learn about writing and working with actors.

—*Gia Coppola, Granddaughter of Francis Ford Coppola*

Although formal training in technical writing may be helpful, you don't need it any more than Francis Ford Coppola needed film school to become one of the most successful figures of Hollywood filmmaking. What you need is

- » A love of learning
- » An attention to detail
- » A good command of the English language

- » An understanding of how people use and process information
- » The ability to manage tasks and work well as part of a team

If you arranged your alphabet soup into acronyms when you were a kid, you constantly asked “why” when people told you to stop asking questions, or you sent Santa lists with headings and subheadings, you’re a natural-born technical writer.

Technical Writers Spring from All Walks of Life

People who write technical documents come from all walks of life — and most aren’t technical writers per se. Here are some actual situations of people who were called upon to write technical documents in the course of their professions:

- » **Computer programmer:** Octavia graduated with a degree in computer science and was hired as a software developer for a company. Several months later, the company felt a financial pinch and laid off the technical writers. Octavia had a big deliverable due in a few months, and her supervisor told her that she had to write a user manual. Sophomore English (which Octavia struggled through and loathed) didn’t prepare her for this type of assignment. After all, Shakespeare wasn’t a technical sort of guy. Poor Octavia had to muddle through writing the user manual and got gray hair prematurely.
- » **Manufacturing specialist:** Bill worked for a manufacturing company for many years and developed a piece of equipment that was expected to revolutionize the industry. The equipment made its debut in Germany at the industry’s largest conference. Bill’s supervisor asked him to deliver a paper (the industry term for a making technical presentation) at the conference. The audience would consist of more than 200 high-level industry professionals. Not only did Bill fear the podium more than the dentist’s drill, he didn’t know how to prepare or deliver a technical paper — especially in a foreign country for an audience of this caliber.
- » **Biotech scientist:** While working at a pharmaceutical company, Abdul had a major breakthrough on a treatment that promised to prevent baldness. The company president asked him to write an article for a major medical journal. Although Abdul was flattered by the president’s request, he didn’t know the first thing about writing or submitting a technical article.

BRIGHT AND EXCITING FUTURES FOR TECH WRITERS

The Bureau of Labor Statistics released its annual Occupational Handbook for Technical Writers. It predicts that job growth in this field is expected to outpace the national average for all other occupations. This is due in part to the growing high-tech and electronics industries that are embracing the value of superior-quality technical communications — paving the way to solve problems more quickly and easily by intersecting the human experience with the digital world.

» **Sales representative:** Lynette was a sales representative for a worldwide computer distributor. She'd often be away from home for weeks at a time. After 15 years as a road warrior, Lynette suffered from burnout. (She used to leave her picture on the fireplace mantle so that her family wouldn't forget what she looked like.) Lynette had been reading about the burgeoning field of tech writing. She called a local college, got all the literature, and decided to pursue a degree in technical writing.



Although I changed the names to protect the innocent, scenarios such as these are typical. Technical people who aren't trained writers are constantly asked to write technical documents. Their education and work experience rarely prepare them for this type of challenge. This book can help bridge the gap!

Documentation Is Part of Our Everyday Lives

Whether you realize it or not, documentation is part of our everyday lives — both personal and business. When you buy a new piece of electronics, it comes with instructions. When you buy a DIY (do-it-yourself) furniture kit, it comes with assembly instructions. When you get a prescription for medication, it comes with a leaflet on how often to take the medication and what the side effects may be. Documents are written for all of us, not just for computer geeks who assemble rockets or plasma generators. And it's not just the computer geeks who write technical documents — all technical people do at some point in their careers.

THE HUMBLE BEGINNINGS OF TECH WRITING

Technical writing as we know it today took root in World War II when the U.S. military persuaded “those who served” to write manuals to aid the war effort. The military needed to teach soldiers about weapons, transport vehicles, and other hardware. These “technical writers” had little or no training. They just sat down at their manual typewriters and banged out whatever made sense to them. I don’t know whether it made sense to the poor soldiers trying to decipher their writing. But we did win the war!

Technical writing means different things to different people. It covers the fields of electronics, aircraft, computer manufacturing and software development, chemical, biotech, pharmaceuticals, health, and much more. It spans the public and private sectors as well as government and academic institutions.

Technical Writing Differs from Business Writing

Many people ask the difference between business writing and technical writing. The difference is analogous to apples and watermelon. For example, at the very core (pardon the pun), apples and watermelons are fruits. And at the very core, documents are words and graphics. Beyond the core, business and technical documents are different species.

Documents of the business kind

Emails are the crux of business writing and account for as much as 90 percent of all business communication. Other type of business writing include letters, reports, blog posts, articles, and more. One major difference between business and technical documents is that business documents are generally written by one person, often for a single learner or small, select group of learners. Following are some commonly written business documents:

- » Agendas
- » Emails
- » Letters

- » Meeting minutes
- » Proposals

Documents of the technical kind

People in specialized fields write documents that relate to technical or complex subjects. Unlike business documents, technical documents are often a collaborative effort between a technical writer, UX writer, subject matter expert (SME), editor, and others. Technical documents are generally intended for a vast number of learners. Following are some commonly written technical documents. You find chapters about the specifics of writing each of these documents later in this book.

- » Abstracts
- » Articles for publication
- » eLearning
- » Executive summaries
- » Functional and detail specifications
- » Online help
- » Questionnaires
- » Reports
- » User manuals

Assigning Responsibility for Technical Documents

The responsibility for writing technical documents depends on a company's structure and resources. Following are several ways that companies typically generate technical documents:

- » **Technical gurus (engineers, software developers, and others) write their own documents.** Some of these people may have taken writing courses, but most have no training in writing a cohesive document. These “technical writers” often overlook steps in the process. They write what's obvious to them. And they often haven't identified the needs of their learners.

- » **These same gurus may draft documents and then turn the drafts over to technical writers to edit, format, and polish.** Unless the technical writer has an opportunity to learn the subject matter intimately, many of the steps that may have been overlooked by the gurus aren't identified by the writer or editor. This process does, however, produce a document that may be more pleasing to the eye.
- » **A technical writer is called in from the onset of a project.** The writer works with the developer who's the subject matter expert (SME). They work as a collaborative team, each adding their expertise to the project. This approach is the best of all possible worlds.

It's About Strategy, Not Software

Anyone who writes technical documents must understand how critical it is to take a strategic approach. For example, if you design a custom home, do you first call someone to wield a hammer? Of course not. A hammer is merely a tool. To design a custom home, you call an architect — a trained professional who designs layout; renders plans for the plumbing, electrical, and heating systems; and provides the structure. Then you call someone with a hammer.

The same holds true in technical writing. Effective technical documents require an information architect — *a technical writer*. Whether this person is a professional technical writer or an engineer or software developer who writes technical documents, this person must plan, design, and provide logical structure. Anyone can learn to use the software to create the document. Much like the hammer, software is merely a tool. The key to writing a great document is *strategy*, not software.



SHERYL
SAYS

Someone once told me that they wouldn't make a good technical writer because they can't even use jumper cables to rev up an ailing car battery. Remember that technical writing isn't about jumper cables or about understanding every aspect of the technical and scientific communities. And it isn't about knowing every nuance of the latest software application. Very few people have that broad a knowledge base. Technical writing is about using *strategy and resources* to write clear, accurate, and logical documents. If you apply a logical strategy and avail yourself of resources, you can write just about anything — from using your instant pot to assembling a jet engine.

What You Need to Succeed

Following is a snapshot of what it takes to write clear and understandable technical documents:

» **Show respect for your learners.** You must always write with respect for your learners. Write with a positive attitude, not with arrogance. I've heard technical writers speak of their learners arrogantly with remarks such as, "We don't write these documents for idiots. If they're that stupid, they shouldn't be using this product." (Well, excuuuuse me.) Even the brightest humanoid may experience confusion when presented with something entirely new.

» **Pay keen attention to details.** You show your keen eye for detail in the way you think about what you write. I recently saw a resume from someone who was applying for a position as a technical writer. Check out these vague bulleted items I extracted from that person's resume:

- **"Contributing writer to city newspaper."** Which newspaper? What do they write about? Did they contribute weekly? Bimonthly? Monthly?
- **"Generated technical reports."** What do they mean by "generated"? Did they write the report or merely click the print button and spew it out?

This writer wasn't able to identify the details that a potential employer would want answered. Therefore, it was obvious that this person couldn't identify the details learners would need. *You must be able to anticipate the questions your learners will ask, and you must answer them.*

» **Know your learners and their requirements.** Unlike a piece of communication you may write for a specific learner, you often write technical documents for a diverse group of learners. You must understand their needs in order to determine how you write the document and whether print or electronic media is appropriate, or whether streaming or simulations may work better. Check out Chapter 3 for information on understanding your learners by using the Technical Writing Brief.

» **Collaborative efforts.** To tweak John Donne's famous quote: "No tech writer is an island." Even if you're the only tech writer on your project, you'll work with people inside or outside the organization: SMEs, editors, publication/electronic specialists, and end users. Chapters 2 and 14 talk about what it takes to work collaboratively.

» **Demonstrate the ability to leg-o your ego.** Last but not least, you must be able to leave your ego at the door. Your finished document will often be very different from your original draft. Everyone who reviews the document will feel compelled to pick up a pen and mark it up. It's all part of the process — the need to make a contribution. So, be prepared to have your work edited, re-edited, and perhaps ripped to shreds. (There's no chapter on the latter. Just smile a lot and mumble to yourself.)



TECHNICAL
WRITING BRIEF



CROSS
REFERENCE

Seeing Is Believing

As mentioned earlier in this chapter, we come in contact with technical documents in our daily lives. Some documents are well written; others leave us scratching our heads and wrinkling our brows. What's the difference?



CROSS
REFERENCE

Following are *Before* and *After* cases that give you a chance to look at two different approaches for writing and presenting information. I took each *Before* case from an actual document where the writer buried the key information. Each *After* case shows an improved version where the key information jumps out. (Check out Chapter 5 to discover how to visually prepare technical documents that call the learner's attention to the key issues at a glance.)

Case 1

The United States Air Force tabulated the weight of 80 officers. Following are key questions learners may have:

- » What's the median weight?
- » What's the highest weight?
- » What's the lowest weight?

Before document

The following chart is from the *ESD Process Improvement Guide* prepared by the Electronic System Division, Air Force Systems Command, Hanscom Air Force Base, Massachusetts. It displays the weights of the 80 officers in column format. The learner must search through all 80 numbers to answer the questions.

Weights of 80 Officers

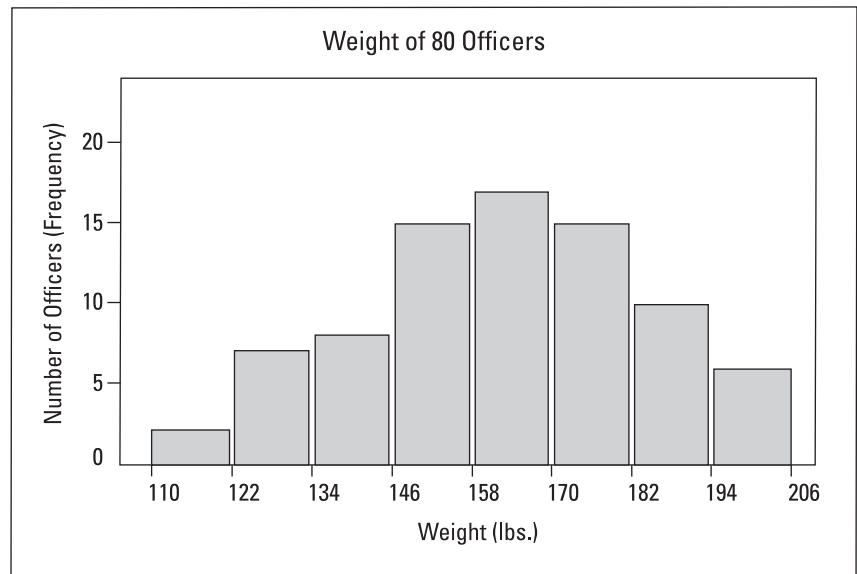
206	180	139	163	159
155	180	165	149	127
159	171	141	190	159
153	181	180	137	161
115	156	173	165	191
159	110	179	145	144

Weights of 80 Officers

150	206	166	188	165
127	130	172	180	147
145	150	156	171	189
190	200	208	169	139
130	128	155	185	166
165	187	159	178	169
147	150	201	128	170
189	163	150	158	180
139	149	185	129	169
175	189	150	201	175

After

The distribution of the data in the form of a histogram shows the answers to the learners' questions at a glance.



Case 2

The U.S. Department of Transportation wrote a “Transit Security Procedures Guide.” Key issues in the following paragraph would be: What action must authorities take to prevent similar incidents? The *Before* paragraph buries this information; the *After* paragraph creates bullets to call attention to it.

Before document

Training must include the sensitive handling of complaints and reports of offenses. Although these offenses are not actual assaults, there are victims. Authorized personnel must respond in a manner that leads the victim to believe that a similar incident will never happen again. This includes taking immediate action to apprehend the offender, taking information from the victim that may lead to arrest and prosecution, and notifying the police.

After document

Training must include the sensitive handling of complaints and reports of offenses. Although these offenses are not actual assaults, there are victims. Authorized personnel must respond in a manner that leads the victim to believe that a similar incident will never happen again. This includes

- Taking immediate action to apprehend the offender
- Taking information from the victim that may lead to arrest and prosecution
- Notifying the police

Case 3

Learners of this technical report want one question answered. What are the findings? In the *Before* case, the learner must read through an entire paragraph to find the answer. In the *After* case, the answer is part of the headline and identifiable at a glance.

Before document

The engineering analysis and observation did provide significant information. Review of the data indicates that a 10- and 12-mil printing process can produce consistent and acceptable result. The solderpaste heights were consistent and had a low standard deviation. The 8-mil spacing solderpaste heights were much lower with a larger standard deviation. Solder shorts and opens were much lower for 1- and 12-mil spacing as compared to the 8 mil. From a statistical point of view, the analysis indicates that no statistically valid conclusion may be drawn, due to the error in the model. Therefore, we must perform additional tests.

After document

Due to an error in the model, we must perform more tests.

The engineering analysis and observation did provide significant information. Review of the data indicates that a 10- and 12-mil printing process can produce consistent and acceptable result. The solderpaste heights were consistent and had a low standard deviation. The 8-mil spacing solderpaste heights were much lower with a larger standard deviation. Solder shorts and opens were much lower for 1- and 12-mil spacing as compared to the 8 mil. From a statistical point of view, the analysis indicates that no statistically valid conclusion may be drawn, due to the error in the model. Therefore, additional testing must be performed.

Beyond the Writing

Whether you're a newbie, certificate or degree holder, or seasoned technical writing professional — whether you freelance or work for a company — always have a current portfolio. It could be the decisive factor in whether you land your next assignment. Technical writing is project-based, and when one assignment is finished, you'll be on the hunt for another. The portfolio is your opportunity to showcase your range of writing talents, thought processes, tools in which you're adept, and other complementary skills.

Store your portfolio on your blog or on a portfolio site such as Contently or LinkedIn. Have a paper-based portfolio as well. Start creating your portfolio now and keep it up to date. Don't procrastinate.

Create a dynamic portfolio

If you're a newbie with no degree or certificate, search the Internet for “poorly written technical writing examples.” You'll find loads. (Make sure to state they're not your documents, but represent your skills in dramatically improving documents.)

- 1. Download three or four poorly written examples and label them “Before.”**
- 2. Read Chapter 5 about the elements of good technical writing.**

This includes lots of whitespace; sentences limited to 20 syllables or fewer; and paragraphs limited to eight lines of text. Include strong, descriptive headlines, bulleted and numbered lists, and charts, graphs, and tables when applicable.

- 3. Then recast the documents and label them “After.”**

If you earned a degree or certificate, pull out five to six of your best works — those for which you received high grades. If papers show an A or A+ include the outstanding grades. Be prepared to discuss the following:

- » The nature of the assignment
- » Your strategy
- » Tools you used
- » Whether you were part of a team or worked independently
- » Constructive criticism and why it was helpful

If you're a seasoned technical writer, include your best work for a variety of documents (reports, manuals, video scripts, and so on).



TIP

What if your writing is proprietary? Ask the person who engaged you if you can redact or change some of the information and showcase fragments. If not, recast the document. Change the names and any content that points to the original. Be prepared to discuss the following:

- » Your writing process
- » Whether you were part of a team or worked independently
- » Whether you interviewed SMEs
- » How long the project took
- » Tools you used
- » Did you finish on time? If not, why?

Every portfolio should include your bio or resume. In addition to the obvious (name and contact information), include the following: education, experience, technology tools, skills, foreign languages, and anything else that will put your best foot forward. Have a basic structure, but tailor each bio or resume to the project you're seeking.



TIP

You can also create an online portfolio and/or website to showcase examples of your writing. Platforms such as GoDaddy, Wix, and Squarespace have easy-to-use templates giving anyone the ability to put their work online.

Create a LinkedIn profile

LinkedIn is a free social networking site that focuses on professional networking and career development. Creating a profile will dramatically increase your network, position you as a professional, and let you reach out to high-quality learners and leaders. For a fee you can subscribe to LinkedIn Premium, which offers additional services such as classes, seminars, and who's searching your profile. (I used to have a robust website but cancelled it because most new business was coming from people finding me on LinkedIn.) Put yourself out there.

Present your business card

A business card succinctly conveys what your business is about. If you're a freelancer, it's your "calling card." With everyone having smartphones, electronic (digital or virtual) cards are rapidly replacing paper cards. It's best to use the advantages of both to leverage online and offline opportunities. Neither is expensive to create (some are even free) and they serve different purposes.

- » **Paper cards offer a personal touch.** When you hand someone your card, you create an instant impression and build rapport. Receivers can jot down where they met you and if there's any follow-up (such as meeting for coffee). They're great for networking at events, exhibitions, and meetings.
- » **Electronic cards are a quick way to share information online.** They can be created and shared via an app or produced as a PDF and shared on email, social media sites, and vCard files.

Regardless of which you use, take advantage of the back and front. On the front, have critical information: name, address (if relevant), phone, email, website and/or LinkedIn, and tag line (if you have one). On the back, share a testimonial, tag line, statistic, or relevant quote. As an added bonus, include a QR code to showcase your portfolio, testimonials, or any other brag pieces. It's easy to generate a QR code through the following vendors as well as others:

- » **Printed cards:** VistaPrint, Zazzle, or Staples
- » **Electronic cards:** Beaconstac, HiHello, Knowee, LinkTree, or QRD

RESOURCES FOR TECH WRITERS

Whether you're a seasoned professional or just starting out, avail yourself of these resources to move to the top of your profession:

- Google offers a free technical writing course that many have rated high for quality and a well-planned approach. It's geared for newbies and senior tech writers. Check out <https://developers.google.com/tech-writing>.
- Paying platforms for courses include Twilio Voice, Digital Ocean, Draft.dev, Vonage, Neptune.ai, and others. Fees range from \$50 through \$1,000.
- If you're a job seeker, check out <https://technicalwriterhq.com/career/technical-writer/technical-writer-interview-questions/> to get help with interview questions.
- Join the Technical Writer forum on LinkedIn.
- Sign up for a free course at <https://seofordevs.com/> to learn about search engine optimization (SEO), which will help you tailor content to the right audience while also driving traffic.
- Go to www.isitwp.com/headline-analyzer to analyze how your headlines are performing.
- Check out www.writerswrite.com/technical/resources/ for additional resources.
- Visit freelance job sites such as fiverr.com and upwork.com.

Also, if you're a freelancer, join your local Chamber of Commerce and become part of your business community. Some of the benefits are business exposure, networking opportunities, mailing list access, seminars, freebies and discounts, members-only insurance, and more. If you work for a company, chances are your company belongs to the chamber, entitling you to attend meetings.

Tech Writing Career Trajectories

If you choose, technical writing can open doors to many fields and put you on track to an advanced career path. You could become a senior technical writer or project leader. If you're analytical, try your hand at writing for the medical or scientific professions or writing educational texts. You could become a technical journalist or online content developer, write scripts for technical videos, and more. With a technical writing background, your opportunities are vast. The following sections discuss a few career paths you can consider.

Translate technical documents

Companies with foreign suppliers or companies entering foreign markets are always on the lookout for technical translators. Documents that require translation include manuals, policy and procedure manuals, user guides, instructions, technical specs, scientific papers, patents, technical proposals, whitepapers, online help, and much more. There is a big need for technical translators in all fields. If you're fluent in a foreign language, this could be a niche for you!

While some companies use electronic translators, others prefer the human element. Electronic translators may have a low level of accuracy, and accuracy must be consistent across different languages. Machine-generated translations often sound robotic, choppy, and not culturally aligned. Machines can translate content, but they do make mistakes that can damage the brand that will be costly to a company. Although machine translations have come a long way, they're still far from ready to replace people.

Become a UX writer

The Internet is experiencing a digital renaissance as more and more companies realize that an excellent user experience leads to customer loyalty, which means greater profits. This has resulted in a burgeoning career path for technical writers — UX (user experience) writers. UX writers focus on the way users interact with and experience products, services, interfaces, and systems. They write microcopy with an eye on clear messages of errors, notifications, calls to action, in-app tool tips and tutorials, product and service descriptions, UI button text, form fields, troubleshooting, and much more.

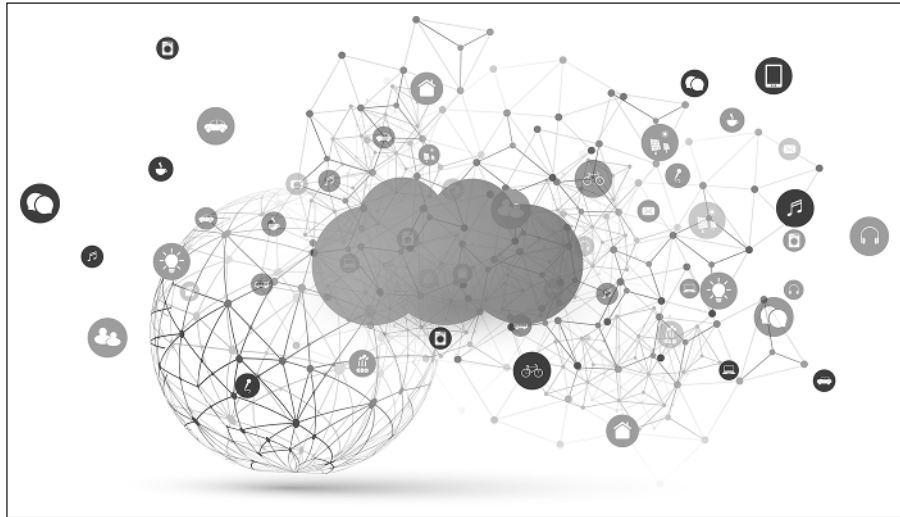
What does it take to be a UX writer? Understanding user research fundamentals and user-centered design, speaking the user's language, and empathy (aka *I've walked in your shoes.*) UX writers know that messages such as “An unknown error has occurred” or “404 not found” leave users dissatisfied and create a poor user experience.

Formal UX training isn't a must, but it can be helpful. There are courses for free and for a fee. If you're new to UX writing and want to get your feet wet, check out “free ux writing courses.” If you've had some experience and want to refine your skill set or advance to the next level, you'll find fee-based courses at <https://careerfoundry.com/> as well as other sites.

Soar into the cloud

Have you ever thought of becoming certified in cloud computing to move your career in new and exciting direction? Cloud technology is one of the hottest buzz-words in technology, and businesses are clamoring for technical writers who are “certified” in the cloud. Check the Internet for “cloud certification” and you’ll find a host of companies offering certification. This field creates an opportunity for tech writers to learn current authoring tools and applications to excel in this new technology.

By the way, have you ever wondered where the term *cloud* originated? The phrase cloud computing was inspired by the cloud symbol that’s often used to represent the Internet in flowcharts and diagrams, as you see in Example 1-1.



EXAMPLE 1-1:
Clouds
connecting
computer
hardware.

bagotaj/Adobe Stock

Become a scrum master

If you want to transition from a technical writer to a communications leader, consider becoming a scrum master. Scrum stands for *systematic customer resolution unraveling meeting*. It’s a framework centered around the key principles of continuous improvement, flexibility, and respectful teamwork. Although the name sounds ghastly, it’s basically a framework designed for small groups of ten or fewer. Groups break work into goals that can be completed within time-boxed iterations, called *sprints*. If you’re familiar with rugby, the scrum encourages teams to organize while working through problems, much like technical writing teams need to do.

The skills of technical writers and scrum masters are aligned, so the transition can feel natural. Both professions require good communications skills, adaptability, plus information gathering and distribution savvy. As a scrum master, you'll manage teams of technical writers, UX writers, and project planners. You'll troubleshoot and be involved in stakeholder relations. If you're interested in becoming a scrum master, there are many online courses. Use these search words to find sites for each:

- » Agile Scrum Master certification course
- » Professional Scrum Master (PSM) course
- » Agile Crash Course: Agile Project Management; Agile Delivery

MY JOURNEY AS A TECH WRITER

This is the tale of how I got started as a tech writer with no formal education in the discipline. Driven by goals, guts, and fortitude, I carved out a fulfilling and multi-faceted career. You can as well!

My Technical Rite of Passage

I graduated from college with a BA in Education and an MA in Business. After teaching English at the college level for several years, I heard the business world calling me. But how could my expertise in Chaucer and Donne answer that call? Through networking, I landed a tech writing contract with a chap who was starting a software company. I had no tech writing experience and he couldn't afford to pay much, so we were a matched pair. I did lots of research into the world of technical writing and produced several successful user manuals. To help his business grow, I launched a marketing campaign that got him into several trade shows and prestigious publications. His business took off. And so did I . . . elsewhere (my choice).

I fizzed with excitement and was ready for the big stage! I landed a contract assignment at Western Union (WU) that turned into a full-time position (back when WU was a full-fledged technology company). I was there for five years. Great experiences and great people. Then I got married and moved from New York to Boston, where I knew no one. (This predates working from home, so that wasn't an option.)

Onward and Upward

Through several WU relationships, I got a contract assignment with the U.S. Department of Transportation (DOT). I wrote several user manuals then was ready for another

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challenge. Still at the DOT, I wangled my way into video productions. I had no experience but continued to be resourceful. I learned the art of storyboarding and wrote the script for several high-level videos on aviation and ground transportation. There was no stopping me now! When that contract ended, I started my own communications company: Sheryl Lindsell-Roberts & Associates. I've worked in a wide variety of industries and bring in graphic designers and video producers as needed. Always looking for the next challenge, I wondered, "What's next?"

Reaching for the Stars

New ideas were sparking in the depths of my imagination. I started writing books, but it was a long, rocky road over many years before success. Fast forward and I landed a contract for *Technical Writing for Dummies* — one of four Dummies books I authored (and 1 of 26 books I ultimately wrote).

With that knowledge in hand, I developed a technical writing workshop that I facilitate at large organizations. Not forgetting my passion for video productions, I prepared and facilitate a workshop titled "Stories and Storyboarding: The Key to Influential Presentations," which I hope to turn into my next Dummies book. Stay tuned!