Technical Communication: a Field Defined by Specialization.

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# Introduction

Technical communication is a field that constantly changes and as a result it is critical that we evaluate the needs of the workplace regularly. Skills that were critical a few years ago may be obsolete, and technologies that did not exist a few years ago may be critical to the job. The only way for future professionals to go into the field prepared is to research the field broadly and determine the skills they need to be successful.

This paper will investigate what skills technical communicators need to develop through two methods. The first method is a survey of working technical communicators that focuses on the skills that professionals feel have been the most useful to them. The second method is a corpus analysis of a collection of 123 job ads for technical communicators, technical writers, and other related job fields.

While there has been research regarding this topic in the past there are a number of gaps in the research. For example Rainey, Turner, and Dayton (2005) have a paper on the subject, but their only method of data collection is a survey of technical communicators. While the data they collected shows if schooling is preparing students to work as technical communicators, it does not determine if schooling is giving them the skills current employers are looking for.

These methods, in tandem, are designed to show not only what employers are asking for but also what skills are necessary to be effective at the job. I hope to illustrate that technical skills are not only desired but are expected, and that specializations are critical to distinguish yourself in the field.

# Method

In the corpus portion of my study I analyzed job ads soliciting technical writers and related jobs. My class collected job postings from August 24 to August 31 from a variety of websites. It was crucial that we used search keywords other than just “Technical Writer” as it is important to view the entire market, and unfortunately there are a huge number of phrases to describe the work of a technical communicator. In the Rainey article mentioned above those interviewed self-identified themselves in sixteen different ways.

After the data was collected I used the corpus analysis program AntConc to find terms and phrases that were commonly used throughout all of the job postings. After finding commonly used words AntConc allows you to find the context of those words. My choices in keywords were determined by two main factors: the most commonly occurring words and competencies which were asked for repeatedly.

My survey participants were discovered through two methods. First I went to twitter and asked some of the most commonly followed technical communicators to respond to my survey. This method was chosen to get prospective from trendsetters at the forefront of the field. To ensure I had a reasonably large number of responses, I also posted the survey to the LinkedIn group “Technical Writer in Action.” This method of collection was effective because every response was tied back to a LinkedIn account which allowed me to check into their credentials. After getting into contact with writers I asked them the following questions:

1. What are your most used tools (software)?
2. What is your definition of digital literacy and how does it relate to your jobs?
3. What is the most important technical skill you possess?
4. How valuable is being able to teach yourself new technical skills?
5. What is your biggest struggle when dealing with subject matter experts?
6. What is one skill you wish you had learned before joining the workplace?
7. What skills did you develop in college that you no longer use at work?
8. Have your jobs provided any on the job training?
9. How will technology continue to change the field?
10. What kind of deliverables do you work on?
11. If you could have told yourself one thing before starting as a technical communicator what would it be?
12. What is the best and worst things about your job?

These question were chosen to determine which competencies are most important, especially in regards to technology. Personal questions such as numbers eleven and twelve were designed to determine expectations new technical communicators should expect to ensure they do not have unrealistic expectations.

# Corpus Analysis Findings

## Job titles

Isolating the titles of job postings allows us to determine the phrasing a technical communicator should search for when looking for work. This will allow us to better understand what words and phrases those in hiring positions will use to look for potential hires.

The first finding was that only 51 of the 123 ads expressly request a technical writer (41%). In fact, only 63 posts even contain the word technical. It is clear that the discipline has largely moved on from the name “technical writer” and will continue to redefine itself in response to the increasingly specialized needs of workplaces. Unfortunately the outside of words “technical” and “writer” there was little commonality between the titles.

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| **Keyword** | **Frequency** | **Percentage of titles** |
| Writer | 66 | 69% |
| Technical | 63 | 66% |
| Content | 15 | 16% |
| Editor | 11 | 12% |
| Specialist | 11 | 12% |

There were seven different “technical” professions listed. Aside from technical writer other phrases used included: analyst, communicator, designer, developer, editor, and specialist. The fact that there were so many different ways to describe the job while still using the word technical suggests that there is an active avoidance of the term technical writer. There may be some bias in the data due to the collection method, but even taking that into account it seems astonishing how few companies are looking for technical writers.

The next most commonly used phrase for the profession was “content strategist.” This phrase was used in only 7% of titles (9 mentions). This was surprising to me because I assumed this was where the field was moving in defining itself, but that does not seem to be the case. While again there is a risk of bias, the conclusion I draw here is that specializations will ultimately determine the titles of future graduates much more than in the past.

## Job Descriptions

The job descriptions focused largely on the requirements and expectations of future employees. Most of them were relatively vague and focused on describing the companies themselves. One thing I found surprising was how little discussion there was about the genres of writing necessary for the job. The words proposal, grant, and manual collectively appear nine times throughout the corpus. Outside of that, there are a handful of references to industry specific genres, but by and large the ads tended to explain that employees would manage content without going into much more specific detail.

This lack of specificity can likely be explained by the “jack of all trades; master of some” expectation placed on technical communicators. In today’s market if companies know they need something written they can simply outsource or hire temps. The role of the technical communicator has moved from writing content toward planning what needs to be written.

Another major focus of many of the ads was management skills. The phrase management appears 219 times in the corpus, although at times it is in reference to content. This suggests that the shift in expectations toward planning carries over into the planning of other employees. This is likely because, as suggested before, most general writing does not require a specialist. This shift toward management also suggest that social skills are more critical to the profession than people might immediately assume.

## Job requirements

Job requirements could be categorized into three sections: social skills, technology / tools, and experience. Needless to say, there were writing requirements but most of them could be boiled down to “the applicant must have extensive writing skills.”

I will not go into much detail about the social skills requirements as I have already explained the changing expectations about management skills. That said, the mentions of communication skills as requirements reinforce the need for working well with others. Interacting with subject matter experts is just one example of why technical communicators will need socials skills moving forward.

Experience expectations were relatively low. Most of the experience requirements ranged from one to five years. This is likely due to the fact that the jobs have only existed for a short time so it is unlikely there will be applicants with much more experience. The amount of data and content that must be coordinated to run a website has never needed to be coordinated before.

The overwhelming majority of the requirements focused on technology and tool based skills. In regards to technology, as expected, the most commonly requested skill were XML and content management skills (56 mentions of either phrase). Other expected skills included html and word processing. There was also a focus on CSS and java script with 18 and 20 mentions respectively. These skills were generally not expected, but instead ways for candidates to distinguish themselves.

The most commonly requested tool was Microsoft Office by a wide margin with all of its products being mentioned 170 times. There was a slight focus on Word and Excel over PowerPoint, but PowerPoint is still mentioned more often than next most mentioned software. The next most commonly requested tool set is the Adobe Creative Suite with 75 mentions of its products. There was also a decent number of mentions for XML management software. Robohelp was mentioned eight times and MadCap flare was mentioned five times.

Though many of the requirements were expected it is clear that the field has changed dramatically since Carolyn Miller argued that Technical Communication was a rhetorically driven field. It is no longer enough to simply be a strong writer. Technical Communicators are expected to be able to pick up software quickly and bring with them an extensive knowledge of how to control content.

# Survey Findings

A large number of the ideas outlined in the previous section were echoed in the survey so this section will largely focus on things missed by the corpus analysis.

My first question “What are your most used tools (software)?” mostly mirrored the findings of the corpus analysis but one program that was mentioned often was Snag-it, a screenshotting program. Three of my five respondents mentioned it, so it may be worth at least knowing the name of the program for interviews.

Another gap in the corpus was the lack of deliverables employees will work on. While most of the responses were expected things, like word documents, I was very surprised that nearly everyone I contacted had mentioned some form of video. It seems video tutorials have become so prevalent that it is becoming an expected skill for technical communicators. While the video experience expected of technical communicator may be low now, video tutorials will only continue to grow in popularity and may be critical in the future.

One of the more interesting finds in the study I discovered by accident. I intended for question four “How valuable is being able to teach yourself new technical skills?” to open a discussion on learning new software, but three respondent interpreted it as learning how to use new technologies when making manuals. I had never considered that technical communicators are expected to learn how to use gadgets on their own until they mentioned it, but obviously there is no manual for the person who makes the manual.

Probably the most valuable information I collected from the survey was about the social dynamic for working technical communicators. Many responses to question “What is your biggest struggle when dealing with subject matter experts?” explained that subject matter expert will make you earn their respect. I thought one of the most insightful responses I read came from Steve Smith who explained that researching a project before talking to SMEs is critical to ensure you are not talked down to and to make sure you understand everything said. The rest of the response mostly explained that SMEs are often introverted and as a result it is best to slowly build a relationship with them.

The other piece of information I felt to be very valuable was that STC provides a variety of seminars and classes in technical communication concepts. This was a common response to the question “Have your jobs provided any on the job training?” so it seems that even when there is a lack of on job training there is plenty of room for improving.

# Method comparison

I found the corpus analysis to be the more useful tool of analysis, but the two methods combined were much more useful than either tool on its own. By and large the information lined up. Both methods made it clear that the expectations of a technical communicator are very different from even three years ago.

Something I think the survey excelled at was tempering expectation about the field. While the job postings won’t tell you the cold hard truth of dealing with subject matter experts, those surveyed were more than willing to do so. Another gap they filled was explaining the specific deliverables that they worked with which was one of the more enlightening portions of the study.

Another discrepancy between the two methods was the expectations about human management. Interestingly some survey respondents emphasized it more than the corpus while others did not mention it at all. It seems like this skill set is largely determined by the work place you go into and therefore is probably not a skill that needs to be emphasized in curriculum.

In regards to job requirements very few people emphasized the need for the Adobe Creative Suite. It seems as if you only need a basic understanding to make simple images, but advanced photo manipulation will not benefit technical writers all that much.

By and large, the two methods emphasized the same concepts and asserted we need to continue our education long after we leave the academy. I think the biggest take away is that while there may be expectations we can go in with, much of this job is unpredictable.

# Refection

Many of the findings of the analysis were to be expected. It’s obviously still important to be able to use the Mircosoft Office and to write well, but it’s also unlikely for you to find a job that doesn’t expect some form of content management. Gone are the days of sitting in a room alone working on nothing but manuals. Now Technical Communicators must be ready to handle any form of content and learn any new skills as the need arises.

The huge shift in naming conventions suggest two things. First, that employers do not want applicants who expect to do the work that technical writers may have done years ago. We must always keep in mind that “employees who are perceived as communicating effectively with customers and adding value to their experience inevitably are perceived as strategic contributors… Those preforming work similar to assembly-line effort are providing commodities that can easily be provided by relatively unskilled employees” (Dick 2010). Second, it suggests that specialization has become the norm in the field. There are not as many job postings for “technical writer” because people don’t need just general skills, but someone with those skills as well as specific knowledge of the field.

The next major change we can project is a change in deliverables. The amount of data suggesting the importance of video is substantial. I believe that by 2020 video will be an expected skill of most technical communicators at large companies. One interesting direction I had yet to consider that Danielle Villegas suggested in her survey was the expansion of content management into virtual reality and augmented reality devices. Depending on how much of a splash these products make in the market it may become an expect skill of technical communicators in the same way video is gradually becoming expected.

Ultimately it is clear that we must remain as digital literate as possible to remain relevant. Viqui Dill put it best: “Digital literacy, or maybe digital fluency, is the ability to be comfortable sending and receiving information online. Digital literacy is an important skill for me as well as for the users to whom I write. Being able to figure things out for yourself is vital. This means that you've had a lot of screen time and are unafraid to explore and find your own answers.” If you cannot keep up in this field you will be left behind and it is that simple.

Many of my conclusions here mirror the findings of the Spyridakis paper: “Identifying New Topics in TC Curricula: Preparing Students for Success in a Changing World.” I believe classes like digital literacy are crucial not only to develop the skills with tools we may use in the work place, but also to throw students into a workplace like environment where there is very little handholding. Without learning how to teach themselves new technology skills technical communicators will become obsolete quickly.

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