

A “Show Me” Profession Case Study:
Socialized Training, Web Development, and
Professional Life as a Technical Communicator

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Introduction

The purpose of this case study is to gain a deeper understanding of the field of technical communication through an interview with a current professional. This study is designed to help future professionals ascertain how technical communicators may function on a daily basis, examine how prospective employees become new hires, outline the necessary skills to function as part of a company, and analyze the different types of issues new hires may experience and how the issues are resolved. This study notes how our interviewee’s experience and skills relate to the core competencies of proficient technical communicators as described by the Master of Science in Professional and Technical Communication (MSPTC) at the New Jersey Institute of Technology (NJIT) which include “writing and editing,” “document design,” “rhetoric,” “problem solving,” “collaboration,” “interpersonal communication,” “specialized expertise,” and “technology”. (Ding 2012). This study also discusses how our interviewee’s experiences can inform prospective technical communicators of what they can expect in a professional environment and how to prepare for such an environment.

Literature Review

This study expands on previously existing knowledge regarding how prospective technical communicators acquire professional positions, how they are socially adopted into a professional environment through training and team building, how they perform daily tasks, and how they analyze and address both social and work-related issues. Our team lays out what Clifford Geertz refers to as a “thick description” of the professional life of Jeff Bond, a technical communicator at Imp Designs, a small print design and web development company based in Raleigh, North Carolina. Many of Jeff’s daily practices relate to previous research in the technical communication field (Katz 2002). For example, we see evidence of what Swarts calls “reuse” in Imp designs’ copying and pasting lines of old code to reach a desired effect that was previously attained (Swarts 2010). This “recycling of of

materials to allow one context of activity to mediate another” most often occurs at Imp designs when an issue arises, such as trouble with a particular plug-in or website effect (Swarts 2010).

Another way this study expands on previous research comes with Jeff’s job training experiences and the ongoing socialized training of his coworkers at Imp designs. Vygotsky referred to this as the “zone of proximal development,” where a more experienced person helps a less experienced one perform a certain task (Beaufort 189). We see this in the assistance of less experienced coworkers by Jeff and the other developers at Imp designs. One member of the Imp team is not an experienced programmer; his expertise is in designing documents for print. However, due to the changing demands at Imp designs, he is now learning how to write code.

The study can also relate to Miller’s discussion of technical communicators as “more responsive tools” which “perpetuate and strengthen those private interests” (Miller 1989). Because Jeff’s work as a web developer is more concerned with creating a medium for a third party to display *their* content, he is reliant on the client to produce effective content themselves. If the client wants something displayed on a website, then Jeff and his coworkers have no other option than to do what was asked. Otherwise, they risk losing the client to another company who will.

This study offers insight from a current technical communicator that expands on the previous research mentioned here. It offers yet another example of how these ideas are exercised in the workplace and expands on the discourse regarding these ideas.

Method

Our main goal when conducting this case study was to better understand the field of technical communication. We wanted to see what a technical communicator, in this case a web developer, actually does. We also wanted to acquire as much information as possible regarding daily activities, the transition from academia to a professional career, and the social environment in the workplace.

The primary method for gathering information in this case study was through personal interview. Our team chose to meet with Jeff Bond, a web developer at Imp Designs. The development team at Imp Designs consists of six team members, four of whom work with web development on a daily basis. Jeff’s work is pertinent to the field of technical communication, making his insight highly valuable to prospective technical communicators.

The interview was held Friday, September 14, 2012 at Tompkins Hall at North Carolina State University. This location was chosen because of its convenience for our team and for Jeff. The interview lasted an hour and was recorded and later transcribed. Jeff provided our team with samples of documents he has created, explained how they were developed, how the documents related to one another, and described their purpose in larger projects at Imp Designs. He also answered many questions concerning his professional training, his acclimation from academia into a professional field, his daily routine, and issues he has faced when working on different projects.

The interview was transcribed and read three times: the first to get a full understanding of the information Jeff provided, a second time to code responses according to categories, and a third to organize categories by likeness. A short followup to the interview was obtained through AOL Instant Messenger on September 21, 2012. The follow up was short and consisted on one question. The purpose was to have Jeff expand on a topic that needed further explanation. Because instant messaging clients log user conversations by default, the followup was pulled from the log on the computer.

His interview, followup, and document samples were then compared to the literature reviewed by the team and contrasted against the core competencies and initial interview. The follow up was a short and consisted of one question.

Findings

Specialized Skills

As a web developer at Imp Designs, Jeff needs certain skills, most of which are programming skills (e.g., markup languages such as CSS). He began teaching himself these skills as early as middle school by viewing examples of website elements he wanted to learn and analyzing them, as well as seeking out documentation for plug-ins and modules he wanted to use. “From there, you can deconstruct it [and] pull out certain elements”. He avoided books, because they were “overwhelming” and instead focused on what he could learn directly from other developers or what he saw on the web. Jeff credits these self-taught skills not only for his employment at Imp but also for the employment of other peers in the same field (Bond, personal communication, September 14, 2012).

Socialization

According to Jeff, “it's very much a 'show me' profession” (Bond, personal communication, September 14, 2012). By “show me,” he refers to the low impact formal education has on web developers in the field compared to the importance of their skill sets and portfolio. This assertion is backed up by his employment at Imp; Jeff's boss knew that he did not have an educational background in web development and hired him anyway. He started out as a production artist, which handles print media such as postcards, mailers, and booklets before being socialized into a web development position (Bond, personal communication, September 14, 2012). Jeff's boss further supports this approach by socializing the most recent hire in the same way Jeff was (Bond, personal communication, September 14, 2012).

Jeff's boss takes the same approach to teaching Jeff new code that Jeff himself historically has. He is “shown once or twice [how to perform a task and] then thrown in the deep end” (Bond, personal communication, September 14, 2012). In the “deep end,” he is expected to handle the project himself with little to no oversight while other coworkers work on separate projects. The fact that Jeff receives

little to no oversight makes his zone of proximal development take on a much steeper learning curve. He receives assistance only when sorely needed.

Organizational Culture

At Imp, projects are bounced around between programmers until completion, with each employee doing what they feel necessary or what is required by their boss. Because Imp employees are “uploading and downloading files, we [they] don't want to overwrite anyone else's work” (Bond, personal communication, September 14, 2012). Coworkers often add the next component to a given project rather than editing or overwriting another person's work. If editing or overwriting are deemed necessary, the employee who produced the content in question is consulted before any changes are made (Bond, personal communication, September 14, 2012).

In order to avoid potential problems with two or more people taking one project at the same time or prioritizing incorrectly, Imp's project manager “usually starts off her day by going over her list of open/current tasks and determines where we are [Imp is] with each one and will assign or re-distribute tasks as needed” (Bond, personal communication, September 21, 2012). Due to the technical limitations at Imp, working individually is a necessity in order to avoid overwriting one another's progress or potentially losing work. The project manager taking initiative on passing out assignments helps to prevent overwriting, as well; if employees are assigned work individually, they have no reason to be inside another person's files or code.

To make the communication process more fluid, Imp hosts scheduled, weekly meetings on Friday mornings where each employee discusses their progress on their objectives with the “real intention” of “getting information” from the boss. Again, although the division between his position and theirs is clear, they still do obtain the information they need from him regularly. To supplement the

weekly meetings, breakfast is provided by the bookkeeper and boss’ wife (Bond, personal communication, September 14, 2012), further blurring the lines between their respective positions.

“Throughout the day, there could be like 15-minute mini-meetings with whoever is working on a project” to see where Jeff and his coworkers are on given or priority assignments, and any critiques of their work during these meetings are casual in nature. Jeff’s boss is even said to wheel his chair between Jeff’s desk and the desk of the project manager, “commandeer a computer, pull something up, and [ask] like, 'How does this look?'" Additionally, Imp employees “might pass it [their projects] around” in order to obtain reviews and opinions on their projects (Bond, personal communication, September 14, 2012). However, unless there is an issue with code, a website breaks, or a client submits a ticket to Imp through their ticketing system, that is the extent of their reviewing. Imp’s particular method of handling review and feedback – specifically Jeff’s boss’ desire to receive feedback in kind – implies a lack of formal hierarchy in the way they communicate with one another. Although there are formal titles like “project manager” and “owner” (Bond, personal communication, September 14, 2012), Jeff’s relationship with those above him still allows him the creative freedom to make changes and suggestions, as well as take ownership over projects in the event he can do something they cannot. Newly hired employees at Imp can expect to find independence in the workplace as they work on assignments. Although there are resources available to them if they need help or have questions, they will be working alone on projects, even if they are just starting out in a position.

The result of this level of individuality during the creation or update on a project is that “it works out to be where one person is particularly proficient with one set of plugins” (Bond, personal communication, September 14, 2012). The result appears to create series of “experts” on particular topics that can become a resource for each other if another employee runs into a similar issue later.

Having a particular employee accumulate increasingly expert knowledge on a tool or technology may even provide additional in-house resources to new employees.

More rigid communication with clients appears to be for the sake of the clients themselves – people not socialized as a part of Imp's office – more than it is for the developers, while socialization inside of Imp appears to be one of mutual respect and equality. Given that Jeff works on high-priority projects himself – even though he was only hired in 2011 with different work responsibilities (Bond 2012) – employees at Imp seem to not only have faith in one another's abilities and do not appear to align themselves to their hierarchical positions very strongly. This is supported that Imp employees work on projects individually and that one of Jeff's projects includes creating websites with thousands of users (e.g., Southwest Transit Authority) (Bond, personal communication, September 14, 2012).

Communicating Outside of Imp

However laid back Imp employees act with one another, they still take a more professional approach to communicating with clients. As a result, Jeff utilizes internal documentation to plan and develop ideas for their projects. For example, before any website is created, clients are given a website outline, a data chart, and an Expression Engine user guide document that goes “through the basic navigational structure of the site,” including what pages will be included and what features and information those pages will obtain. From there, Jeff uses a data chart to plan “the back end [of a website] and [make] sure there's ways for them to enter in all the information they're going to need to enter in” (Bond, personal communication, September 14, 2012).

These documents are geared at helping the employees of Imp better understand the project they are going to be tackling and the most efficient method of completing it. Additionally, their approach to external communication exists to help maintain visibility for everyone involved in a particular project.

Visibility is necessary, because “a lot of the times, it's not higher ups that are actually managing the website ... they usually pass it off to an intern or a secretary or something like that to actually do the uploading and managing.” If there is a problem or question, Imp wants “everyone involved to be able to understand what they're actually looking at when they get a file prompt” (Bond, personal communication, September 14, 2012).

After developing the initial outline and planning, Jeff will develop a website using one or multiple programming languages including CSS, SASS, PHP, Javascript, and Expression Engine tags. If the code he needs to create a website or feature has already been written for a previous project, he will reuse it to maintain efficiency (Bond, personal communication, September 14, 2012). We see this same notion of recycling and reusing documents in Swarts’ article “Recycled Writing: Assembling Actor Networks from Reusable Content” (Swarts 2010). In Jeff’s case, his recycling of code is what Swarts refers to as “relocation” or “the movement of a piece of information from one location to another without changing that content in meaning, use, or form” (Swarts 2010). Because the code Jeff is copying is already proven and efficient, there is no need to change anything about it, so “relocation” occurs (Swarts 2010). However, the meaning of this code is what Swarts calls “fluid” (Swarts 2010); that is, “content that potentially has multiple meanings, depending on location, form, or circumstances of use” (Swarts 2010). In most instances, the code Jeff copies produced a desired on-screen effect, so while he performs a simple “relocation” of code, the effect produced by the code is “fluid” to the site it occupies, and its “circumstances of use” (Swarts 2010). The rhetorical effect the code produces on a travel site, for example, is far different from the effect it produces on the websites Imp Designs Web creates.

If there are any issues on the client's end, they can contact the Imp employee working on their project directly by submitting a ticket to their ticketing system. Jeff starts his mornings by checking to

see “if any tickets have been put in to see what's a priority ... and then I [Jeff] would pick whichever was the highest priority project and start plugging away at that.” Tickets are a way for clients to send secure messages to Imp employees at any time, even if the issue arises outside of normal business hours, to ensure that Imp will see it. Tickets are used primarily for issues that Imp developers need to fix for the clients rather than for features the client wants to add at a later date, general questions, or other non-priority communications. For example “a server can crash,” and Imp employees would be expected to “jump on that right away” to prevent website downtime for the client (Bond, personal communication, September 14, 2012).

It is when Jeff runs into problems on his end that he returns to his individualistic approach to learning. When he is unable to figure out how to solve a problem and his coworkers do not know how to help him, he seeks out documentation online. However when he runs into “vague” or “unhelpful” documentation, he attempts to seek advice using “forums, message boards, asking anyone else we [they] can think that has used it before, or messaging the developer directly” through email or Twitter (Bond, personal communication, September 14, 2012).

Jeff's freedom to communicate with other sources (e.g., plug-in developers) implies that not only is he free to work individually on high-visibility projects (e.g., Southwest Transit Authority) (Bond, personal communication, September 14, 2012), he can fix any problems he runs into as he sees fit.

Even though Jeff's boss “commandeers” computers and makes the decisions on whether or not Imp will take on a new client without much regard to how the rest of Imp's employees feel about it (Bond, personal communication, September 14, 2012), he has been shown to seek out critiques for himself from his lower-ranking employees. The lack of attention to hierarchy is further supported when Jeff's boss, in spite of holding the highest-ranking position, regularly develops code and produces deliverables alongside of the rest of the employees.

Discussion

Technical communicators who do not have a simple or effective way to collaboratively work on projects or written documentation with other coworkers may find themselves in a similar position. Rather, the resources available may dictate how social the development of deliverables becomes. However, having a project manager or equivalent position to pass out important work may alleviate both potential issues. If someone in a management position is there to dole out assignments, the social aspect of who has what responsibilities should be clear and no one should be involved in projects they should not be working on at the time.

Without the existence of an effective manager, technical communicators may need to find their own method of prioritizing and managing projects. In the event there is more than one contributing author, web developers would need to check in with one another before making changes or accidentally overwriting another developer’s progress. They may also consider seeking out software that prevents more than one person from accessing another person’s work while someone is currently accessing it. However, the role of a project manager to pass out assignments seems to be vital in preventing confusion between coworkers who have the same access and privileges to content as one another.

If Jeff is correct in his viewpoint that web developers are sought more for what they can do than what they have been taught as part of a formal education, problem solving would be a vital competency to have to succeed in the field. Jeff points to his ability to seek out documentation, converse with other developers, and find solutions to problems he has with code, he relies on this competency himself. He leans on his self-teaching, seeking out documentation, viewing other people’s codes to see how website features were created, and communicating with peers (inside and outside of Imp) to help him solve any issues he may run into. In essence, he does not use any one solution to achieve his projects’ goals, and he will use whatever resources he can find until the issue is fixed.

Considering the environment in which Imp employees are socialized and that communicating with outside developers helps Jeff solve issues he runs into, new hires need strong interpersonal and communication skills, as per the technical communication core competencies. The advice for new developers that Jeff offers is to not “be afraid to ask questions or consult with peers” (Bond, personal communication, September 14, 2012). Without strong interpersonal and communication skills, a prospective or new employee would be hindered in seeking out review when necessary, obtaining different perspectives on how to proceed in a project, reaching out to external resources, and communicating with clients in order to better understand their requirements, either.

Finally, Imp employees and web developers need to have a strong sense of specialized expertise and technology in order to progress in the field. As Jeff states (Bond, personal communication, September 14, 2012), “the standard has changed” since he started teaching himself development skills about ten years ago as a middle school student from HTML to CSS. Standards in markup language have changed relatively quickly over the past ten years. Jeff must continue to teach himself to keep up with industry standards. Web developers need to “always use the latest and greatest of what you [they] can find” (Bond, personal communication, September 14, 2012) in terms of code, resources, and technologies available if they hope to stay ahead in the field. Additionally, because Imp employees find that “one person is particularly proficient with one set of plug-ins” (Bond, personal communication, September 14, 2012), they continue to accumulate specialized knowledge in order to make the work they do more efficient.

However, because the clients tend to supply all of the content, the rhetorical side of website design is handled on the client side. Clients handle most of the design choices such as fonts, image placement, written content, and word choices. At best, Jeff’s rhetorical influence is minimal. Future

web developers may be able to expect paid clients to develop the content itself while the developer’s job is to display said content in an online medium.

The lack of rhetorical influence can simplify the developer’s job, as it will be up to the client to create content, but if the client is not interested in the rhetoric behind their content, there is no guarantee the developer will be able to make a website an effective means of communication. This constraint points back to Miller’s concern that technical communicators should begin “[u]nderstanding rhetoric as a matter of *conduct* rather than production, rather than of constructing texts” (Miller 1989). Without the ability to influence the rhetoric of the content at all, not only are developers, including Jeff, unable to use rhetoric for the purpose of “the good of the community,” they also face the potential problem of simply being a “responsive tool” (Miller 1989) for a third party whose interests are not necessarily ethical, effective, or best in practice.

What technical communicators do, at least in the world of web development, seems to consist of writing code, creating documentation to help clients better understand the process of what needs to happen before a website can be created, and a relaxed atmosphere with regards to peer review and general communications.

Due to the small size of Imp Designs and the informal attitude the owner himself takes towards hierarchy and communicating, this study may not speak for how all web developers are socialized into their positions or how they are expected to complete assignments. Future studies may be interested in how a larger development company, a freelancer, or a company with only one or few web developers in a larger, more general atmosphere’s organizational culture, client communication, and compares to the informal, laid-back culture this study saw at Imp.

Based on Jeff’s initial interview that the web development community at large is one where discourse is open and accessible, other developers are willing to offer support and help if necessary through electronic communication, and the tools necessary to teach one’s self are readily available. One of Jeff’s examples of learning code was using a website’s source code to learn how another developer did what they did; being able to view a website’s source code is feature offered by the major web browsers (e.g., Internet Explorer, Firefox, and Chrome).

Technical communicators in more rigid or large workplace environments can still achieve the expectations of a web developer by seeking out review - whether or not there is a formal review process put in place - in order to gauge a manager’s expectations and complete project requirements. Additionally, as per Jeff’s suggestion of seeking out other web developers as resources, they can also communicate with other peers when they have questions, want advice, or need assistance.

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