Expanding the Object of Technical Communication: A Practitioner's Perspective

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Teknisten viestijöiden toimenkuva on perinteisesti ollut melko kapea: he ovat vastanneet lähinnä erilaisten teknisten tuotteiden käyttöohjeiden kirjoittamisesta. Käyttäjälähtöisyyttä pidetään eräänä teknisen viestinnän tärkeimmistä laatukriteereistä, mutta harvalla teknisellä viestijällä on kontaktia käyttäjiin (vrt. Hackos 2005). Tekniset viestijät tarvitsevat työssään monenlaisia lähde- ja taustamateriaaleja, joita tuottavat kunkin tuotteen tekniset asiantuntijat. Myös tämä rajapinta on usein ongelmallinen (esim. Lee & Mehlenbacher 2000). Tässä artikkelissa tarkastellaan haastatteluaineistoa toiminnan teorian tarjoaman viitekehyksen kautta (Engeström 1995). Tavoitteena on löytää keinoja laajentaa teknisen viestinnän kohdetta; nopea työkalukehitys, ulkoistaminen ja globalisaation vaikutukset asettavat uusia vaatimuksia teknisen viestinnän ammattikunnalle ja uhkaavat alan tulevaisuutta korkeamman kustannustason maissa (esim. Dicks 2009). Tutkimukseen osallistuneet tekniset viestijät näkevät mm. verkostoitumisen sekä käyttäjiin ja sisältöstrategiaan keskittymisen (vrt. Andersen 2014) tarjoavan mahdollisuuksia alan säilymiselle ja kehittymiselle Suomessa.

Keywords: activity theory, technical communication

1 Introduction

Technical communication as a field is facing a major transformation. Globalization and the content management approach to user documentation are reshaping the field fundamentally (Hackos 2005; Slattery 2007; Starke-Meyerring et al. 2007; Spinuzzi 2007; Dicks 2009; Carliner 2009; Hart-Davidson 2009; Giammona 2011; Andersen 2014). Traditionally, technical communicators have had a very narrow job description: They have been responsible for writing the user guides for the products created at the companies they work for. In many cases, technical communicators have had little or no contact with their audience (cf. Hackos 2005). In addition, the boundary between technical communicators and the SMEs (subject matter experts) they rely on for background information has been problematic (e.g. Lee & Mehlenbacher 2000). The value technical communicators add in the product creation process is often difficult to show (cf. Giammona 2011). These are some of the reasons why technical communication is often seen as a commodity: easy to package away, outsource or offshore (e.g. Faber & Johnson-Eilola 2002: 136–137; Dicks 2009: 65). Slattery (2007: 323) calls this type of technical communication 'the assembly of documentation': low-level work where the technical communicators are only responsible for bringing together snippets of information from a variety of sources. The strides that content management systems have taken in recent years have made this process even smoother. Structured documentation

environments make it possible for personnel not trained in technical communication to write clear, well-structured content (Andersen 2014: 122).

Although there are few literature sources about the technical communication industry in Finland (Suojanen 2000; Isohella 2010), the above challenges in the field seem to apply here, too (Virtaluoto 2013, 2014). In addition to the above global trends, the recent breakdown of the Nokia cluster has had a dramatic impact on the careers of Finnish IT professionals (Rönnqvist et al. 2015). As a major employer, Nokia helped establish the field of technical communication in Finland, and the downsizing of Nokia/Microsoft has affected the field greatly.

In this study, the above challenges are looked at through the lens of activity theory. The aim is to explore development potentials in the technical communication activity through interview data. The data and methods used in the study will be described in more detail in the next section, followed by a discussion of the findings.

2 Data and Methods

To ground this study in the experiences of practitioners and due to the lack of current literary sources, interview data was gathered with two experienced practitioners: Nicholas Hill and Mary Nurminen. Hill and Nurminen both have more than 10 years of experience in the field. In addition to their extensive professional experience, both are also veterans of the Finnish Technical Communication Society, the only professional society in the field. Nurminen was the previous chair of the society, Hill is the current chair. The aim of the interviews was to investigate the current state and development path of technical communication in Finland. The data was collected in 2013, at a time when the downsizing of a major employer coincided with the aftermath of the global financial crisis.

The interviews were conducted in English and transcribed by the author of this report. Hill's interview transcript contains 11 639 words, Nurminen's 6880 words. The interview questions were sent to the interviewees beforehand and ranged from the job descriptions and skills of technical communicators to the challenges of the industry today and how the field has evolved during the interviewees' career. The interviewees gave informed consent to participate in this study.

The interview data was analyzed through the lens of cultural-historical activity theory, where the unit of analysis is the collective, object-oriented activity system (Engeström 1995). Activity systems contain the following components:

1) Subject – a selected individual or group involved in carrying out the activity; in this paper, Finnish technical communicators.
2) Object – the concrete instantiation of the purpose for which the activity is carried out; according to the data as well as the literature of the field, the most common object of the technical communication activity is still the user guide or "traditional procedural documentation" (Dubinsky 2015: 121).
3) Outcome – both intended and unintended results of the activity.
4) Instruments – the material and conceptual resources used to work on the object; for example, writing skills, the content management system and background materials.
5) Division of labor – who does what within the activity, including the division of power and rewards; this component of the technical communication activity is often seen as problematic.
6) Community – the collective entity sharing the same object; for example, SMEs and other team members.
7) Rules – the regulations, norms and conventions constraining the activity; both official and unofficial (Engeström 1995: 41–47).

Activities are constantly evolving through history and each historical phase involves qualitatively different viewpoints, artifacts and ways of thinking (Engeström 1995: 49). The historically evolving activity system is driven by a communal motive embedded in the object of the activity (Engeström 2000: 964). Activity systems are multi-voiced; qualitatively different and historically developed viewpoints, artifacts, practices and ways of thinking exist in each activity setting (Engeström 1995: 49). This multilayered nature of activity systems is both a source of development and a source of conflict (Engeström 2008: 27). In activity theory, these historically accumulating structural tensions within and between activity systems are called contradictions, which manifest themselves as disturbances and conflicts in the everyday experiences of professionals (Engeström 2008: 205). Becoming aware of the contradictions – the "driving forces of transformation" – at play in the activity can relieve professionals from pressures experienced at an individual level and can lead to a shift toward collective transformative efforts at a systemic level (Engeström & Sannino 2010: 5). The concept of expansion in activity theory refers to this collective learning process. The focus is on resolving the contradictions at play by qualitatively transforming the object; what the activity produces and why (Engeström 1995: 99).

Activity theory was chosen as the analysis method for this study for two reasons: as a theory, it is focused on development and change, while recognizing the characteristics and limitations of the activity system under scrutiny. Any development efforts must be "historically possible" in the specific activity setting (Engeström 1995: 93). While it is

possible to use the experiences of other, similar activities as an information source, each activity system has its own history and individual features to consider.

The object of the technical communication activity as it is manifested in the data is the focus of this study. The context of this study and the tensions experienced by the interviewed professionals will be discussed next. The development potentials and possibilities arising from the data will then be explored.

3 Context of the Study

In his interview, Hill described the field of technical communication as "very diverse". This diversity has been seen as both the strength and the problem of the field by, for example, Rainey (2005: 200) and Spilka (2002: 102). According to Boch (2011: 310), educational programs in technical communication were preceded by careers in technical communication, which is also the case in Finland, where many technical communicators have learned 'on the job' and have no formal education in the field. In short, the field is not yet very established (cf. Suojanen 2000). However, despite the diverse job descriptions and even in the light of the recent changes, technical communicators still "fundamentally use words and images to help people accomplish their goals" (Dicks 2009: 52). As discussed above, the object and outcome of the activity system give it meaning and purpose. According to Dubinsky (2015: 124), user documentation is still the "primary work product" for technical communicators, i.e. the object and outcome of the activity. This common ground makes it possible to look at technical communication as an activity system.

As mentioned above, there have been various calls to guide the profession into a more sustainable direction. However, some of the future work descriptions suggested in the literature of the field appear "abstract and idealistic," as they neglect the viewpoints of practitioners (Andersen 2014: 123; Carliner 2009). The suggestion made by Anschuetz & Rosenbaum (2002: 150) seems to be a case in point; according to them, technical communication should be "re-conceptualized as a comprehensive network of activities, knowledge, and skills that help technologies be useful, usable, learnable, enjoyable, memorable, marketable, competitive, and of high quality". The suggestions made in this study, on the other hand, stem from the real-life experiences of practitioners; as discussed above, any development efforts should arise from the specific activity setting to be feasible. The findings of this study will be discussed next.

4 Findings and Discussion

According to the interviewees in this study, the field of technical communication in Finland is currently going through a down cycle; as discussed above, the interviews

coincided with a major employer downsizing its operations and a generally difficult economic climate.

> 1) Hill: So there's the general flatline of the export industry, the fact that one of the major employers in the industry has dramatically reduced its demand, and no other company has picked up that level of employment.

In addition to these country-specific factors, outsourcing and offshoring continue to affect the field in Finland in much the same way as in other higher-cost countries (cf. Dicks 2009).

> 2) Hill: I think the outsourcing thing, it's not just us, look at what happened to the translators – aside from medical companies, do you know any translators who actually work for the companies they translate to? So it's not just us, a lot of things have been outsourced.

As also discussed above, the technical communication activity is often regarded as a commodity, where price is the deciding factor. This type of work is easy to outsource and offshore to a lower-cost country, and as such, it is not a sustainable direction for the field in Finland (cf. Faber & Johnson-Eilola 2002; Dicks 2009). Nurminen points out, however, that technical communication is not the only field affected by these global trends:

> 3) Nurminen: I know, when it comes to putting that X on the box, we're not the first ones! Go talk to mark comms [marketing communications], they're the last in and the first out always, they're the most dispensable people there are. And when the money's flowing, they also find it very easy to get money – but when it's not, it's just "Oh, we don't need them". I think there are certain groups that are very well protected. Like sales, of course, or software, the people making products, they're maybe second on the list of people who will never go. And then, you never know otherwise, who's going to be chosen to stay and who they're going to outsource. Or offshore, or whatever.

So, what steps can be taken to help the field evolve? Nurminen suggested that networking is a skill practitioners need to develop to survive in the changing landscape of Finnish technical communication:

> 4) Nurminen: At one time there were 300 of us and we were all working for the same company, and nowadays people will end up working in smaller groups, maybe for smaller companies, which isn't such a bad thing. There's a bigger need to network outside your own company, and find colleagues in tech comms outside your own company… I don't know if we're caught up to being good at networking yet.

Hill saw the changing landscape as a threat to the field in terms of new people starting out and in terms of career development opportunities:

> 5) Hill: I can see we're getting to a point in time where the field just disappears because there's just no new people coming in. And that's another thing that Nokia could do, they had the resources to bring people into the field. So I think there's a structural problem, how do new peo-

ple get started? I think this is a tremendous challenge for the field as a field. That's one thing for old-timers like myself, I want new people to come into the field, bring new ideas, and new energies and find themselves a career path – I don't see how that happens right now. I mean individual people, yes, but as an industry it's a problem.

In their interviews, both Nurminen and Hill suggested that technical communicators will need to expand their horizons to find new work opportunities: Diversity is the key. For example, instead of focusing strictly on technical communication, professional communication should be looked at on a broader scale.

6)   Nurminen: Tech writers really do need to look beyond just tech writing. Maybe they love tech writing and want to stick to it, exactly that narrow window, but there are a lot of communication jobs out there that are very borderline tech comms, borderline localization, not tech writing as such. So I think people starting out in the field do need to start expanding their outlook a bit beyond tech writing, if they want to be employed. It would be easier to hire someone who knows how to do different things.

Hill also emphasized the importance of practical experience – unpaid, if needs be – as a way to gain entry into the field:

7)   Hill: And with software, you can get involved in some open source project and show that you know what you're doing, which can potentially get you hired for something. One of the things that define writers is that we don't write unless someone pays us. If you look at an open source project, there's almost never any writers involved, because we're not being paid, so no! But that's one way you could sort of get a reputation, get some experience. And maybe that finesses into a job.

While many Finnish technical communicators still mainly work on user guides and online help (cf. Dubinsky 2015), Hill suggested that the traditional focus on user guides or online help is too narrow; a place to start rather than an entire career.

8)   Hill: I think at the more senior end of the field you're going to see people specializing in things like user interface design, marketing, internationalization, things that people might not think even as tech comms. I think user guides, if we're talking like for consumer products, I think user guides are entry level stuff. I mean, I'm not trying to discount the inherent complexities of writing a user guide for everybody, from some old man or woman in China whose son or daughter bought them some whizz bang piece of electronics in the city and gave it to them, to some 17-year-old super-wired teenager in Amsterdam, so I don't think you can discount the complexities of that, but I do think that it is more of a beginning of the career type thing, than later in the career. It's a good place to start.

Both Hill and Nurminen mentioned that technical communicators need to gather information from various sources and have connections in various teams and departments; this gives them a unique perspective of the entire organization.

9)   Hill: I've had the experience many times that the people in tech comms are often one of the few people who know what's happening in the entire company. […] Knowledge management is a term that got burned out in the IT boom, but we're actually the people who know that kind of stuff.

10) Nurminen: And it's kind of interesting, those are often separate departments, still. In most companies, the software people and the hardware people, and the rest of them. A tech writer needs to work with all of them, and they can be a very good thing that pulls it together.

Andersen (2014) also suggests that technical communicators should leverage their internal knowledge to move towards content strategy; the necessary tools are already in place. According to Dubinsky (2015: 132), the value technical communicators bring is in "functioning as an intermediary between the content experts and the users". While this is perhaps not a feasible direction to outsourced technical communicators, whose work is often very strictly limited by the contracts between the companies, for in-house technical communicators it seems like a plausible development avenue. The customer interface is, however, not entirely unproblematic, as discussed in more detail in Virtaluoto (2014).

As mentioned above, it is often suggested that the research done in the field of technical communication is not very relevant to practitioners. This was also brought up by Hill:

11) Hill: I often find, and I don't mean to be critical of my academic colleagues, but I find that a lot of the user research stuff is not very useful practically. They want to put people in labs and monitor what part of the screen their eyes are going to, and that stuff is just hideously expensive to do, and I mean there are maybe three companies I could think of in this country who would even remotely think about spending that much money.

In the face of our current challenges, strengthening the ties between academics and practitioners is crucial. According to Andersen (2014: 150), the "calls to align technical communication education and research with practice are certainly not new but never has the need been so urgent". Hill agrees, but mentions that it may be difficult to accomplish financially:

12) Hill: Hopefully our colleagues in the education field can help there. And if not, then I can't think how we solve this. And the problem is that our field is small enough that they have a hard time, I think, getting the budgets to support us.

A necessary next step would be to map out the practical, concrete needs of practitioners. What tools and transferable skills do they need to develop their work that academic research could provide? It is often mentioned that technical communicators should be able to show – in clear, financial terms – the value they could add to the companies they work for (cf. Schriver 1997: 79). Andersen (2014: 128) also suggests that the content being produced has a direct effect on the "organization's bottom line". However, concrete research projects are needed to back up these claims. In addition, because technical communication is such a diverse field, interdisciplinary research is needed to expand technical communication into a more sustainable profession (cf. Faber & Johnson-Eilola 2002: 139).

5 Conclusion

In the globalized world, non-critical goods and services are produced in countries where it is the most cost-effective to produce them (e.g. Faber & Johnson-Eilola 2002: 136). The outsourcing and offshoring trend has clearly shown that traditional technical communication is an example of this type of commodity activity. Despite various efforts to reshape the profession, the object of the technical communication activity is, in many cases, still limited to the production of user guides and other product information with the often reluctant help of SMEs. While technical communicators have concentrated on this narrow object, the world around them has changed. It is suggested in this study that the current object of the activity is the reason why technical communication has been so severely affected by the dual forces of globalization and the content management approach to documentation (cf. Faber & Johnson-Eilola 2002: 136–137; Dicks 2009: 65). The disturbances experienced by technical communication practitioners also seem to stem from this source; they have trouble convincing their managers, SMEs and even their readership that the current object of the activity is relevant (Virtaluoto 2014). To create truly useful user information, the focus should be on the user's entire activity system (Spinuzzi 2000). Instead, information products are often still created with the product, not the user in mind. Technical communicators may have a wealth of company-internal knowledge at their fingertips, but it is not being used consistently or to its full benefit. And yet, as discussed above, content strategy and truly focusing on user needs are two areas that could add clear value to companies also in areas other than technical communication (cf. Olsson & Bosch 2014). In order for the field to move forward, technical communicators must develop the additional skills and connections needed to expand into these areas – and technical communication practitioners need the help of their academic colleagues to facilitate this process.

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