On Text in Oncology

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Introduction

A focus on documents brings the rich socio-material practices of complex organizational life into view. According to Schatzki (2006, p.1873), as part of understanding organizational life as it unfolds we need "an appreciation of the nexus of material arrangements in which its practices proceeds". To complement, we suggest, we need an appreciation of the nexus of text that is part of organizational practice as well. In the existing literature, rich on accounts of documents in organizational life (see e.g. Harper 1998, Latour and Woolgar 1986, Meehan 1986, Riles 2006), organizational practices based on documents has been described and analysed without accounting for how, on the basis of a corpus of written text, or subsections hereof, the actors in organizational settings may form meaningful intertext between what in a particular situation, for a particular purpose, are relevant (complementary) texts. This is an integral part of work practice in for example oncology. The intertext of a particular situation may be constituted by several kinds of intertextuality, including the complementary type, the intratextual type, and the mediated type. We will argue that one effect of creating intertext based on the corpus of written texts is to draw distributed activities in a complex organizational setting such as a hospital ward together.

The contribution of this article, then, is an attempt to describe and analyse the interconnectedness of texts and how this phenomenon may integrate organizational practice such as cooperative work in oncology, and in the process attempt to find a path for a wider understanding of text in organizational life at large. We will now turn to describe *corpus*, *intertext* and *intertextuality* in oncology. However, before we do so we will briefly account for the setting and the methods of the study.

Methods

This paper is based on ethnographic fieldwork, including interviews and the collection of documents, carried out on two oncology wards in Copenhagen area as well as fieldwork carried out on a hospital ward in the city of Nuuk. The fieldwork was carried out over a period of three months.

Findings: Text in oncology

Oncology is a complex enterprise with a host of different actors (e.g. physicians, nurses, pharmacists, and patients), processes (e.g. surgery, radiation therapy, and chemotherapy), and sub processes (e.g. taking blood samples, analysing blood samples, administrating drugs, regulating doses, observing patients, informing patients, performing PET-CT scans and much more). How is oncological practice integrated across actors, processes and sub processes? The corpus of written text is part of the answer.

The corpus of written text

Generally, when speaking a corpus of written text internal to a given practice such as for example oncology, we are talking of the accumulated body of texts available to the whole range of actors involved, including patient records, nurses records, primary sector records, research protocols, forms, charts, instructions, guidelines and much more. However, we may also consider the corpus in a more limited sense, that is, as related (with fuzzy boundaries) to a select subsection of

oncological practice such as the performance of a clinical trial for experimental treatment of cancer patients.

The corpus of written texts involved in a clinical trial in oncology includes a research protocol and associated forms, checklists, labels, charts, guidelines and patient information material. The research protocol is in this case a 30 page documents initiated by the *investigator* employed by a large hospital in the Copenhagen area working with nurses, specialists and ultimately patients. The objective of the trial is to determine whether or not treating colon cancer by administering a specific combination of cytotoxic drugs bi-weekly, rather than weekly, will yield improved result. Suitable patients are randomized and divided into two groups. One group receives the experimental treatment in accord with the research protocol, the other groups receives the standard treatment. The results in terms of toxicity as well as relapse rate and survival rate are compared across the two groups. If the research protocol performs better it is well on its way to becoming the new standard.

The protocol described the objective of the trial, its rationale, the trials design, therapeutic regimens, clinical evaluation, laboratory tests, insurance, ethical considerations, patient inclusion procedure, and administrative responsibilities. A number of associated texts provide infrastructure for initiating the protocol and performing it in practice, these include *consequence form for the initiation of new protocols, patient information brochure, patient questionnaire on smoking habits, patient inclusion form, patient consent form, prescription form, side effect form, form for reporting serious incidents and side effects, dose modification guideline, flow diagram for blood samples, guideline for labels for blood samples, blood sample labels, guideline for handling of blood samples, hydration- and observation form, and referral form for PET-CT scans*.

The corpus is dynamic in nature in the sense that the body of text develops and accumulates over time. Initially the investigator authors the research protocols and subsequently research nurses create the associated texts such as forms and guidelines needed to put the protocol into clinical practice.

As mentioned, making the relations between the texts are part of what brings the distributed endeavourer of oncology together by enabling connections between what was otherwise disparate actors, times and places. However, accounting for the document corpus is only half the story, it speaks to the distributions of documents among cooperative actors and suggest interrelations. But how does the relations occur? This is where the other half of the story becomes relevant. The other half of the story pertains to semantics. This perspective helps explain how the document corpus becomes meaningful as a corpus, or more precisely, as intertext. It allows us to shift focus from considering the totality of documents among members of a cooperative work ensemble, or subset hereof, towards considering the perspective of the individual actor making sense of what is read. Let us elaborate. We will start by making a useful distinction, namely, that between *corpus* and *intertext*.

Intertext

We must be careful to avoid confusion between the *corpus* and the *intertext*. The intertext proper is the texts that the reader may legitimately connect with the one before his or her eyes, that is, the texts broad to mind when reading, or more precisely, the texts necessary to complete the meaning of what is read (Riffaterre 1980, p.626). This intertext has loose and flexible limits, as it is a situational property, a modality of perception associated with the situation of the reader. In reading the individual document the actor is perceptible to the wordings, phrasings, illustrations that the document at hand will *not* suffice to explain. It is partly in creating the intertext between relevant texts (i.e. assessing what the other relevant texts are) that the actor displays his competences and skills as an accomplished actor in oncological practice.

Consider, for example, a physician reading and completing the prescription form administering cytotoxic drugs to a patient suffering significant side effects from chemotherapy. Administering drugs to a patient in this situation requires the creation of intertext including the prescription form, the side effect form and the dose modification guideline. These texts complement each other. Each text cannot

stand alone. It is by virtue of the complementary intertextuality between these texts that the document at hand becomes useful for the physician. The (completed) side effect form speaks to the significance of the side effects experienced by the patient according to a grading system (from 0 to 4 where 4 is most severe), the dose modification guideline reveals the dose reduction required according to the grade of the side effects, and the prescription form is where the modified dose is finally calculated and prescribed. For example, in a situation where the side effect form after a treatment reads a third degree side effect such as severe diarrhea the physicians may consult the dose modification guideline and read that the treatment of the patient must be postponed until the side effect has been reduced to at least grade 1 and thereafter only continued with 75% of the original drug dose to be stipulated on the prescription form. This intertext is part of what the physicians need to know in order to be able to prescribe the drugs for the chemotherapy treatment in accord with the state of the patient. In addition to this immediate intertext, a property of the work task, a larger intertext might be created that also includes the patient record, numerous clinical guidelines and more. However, the economy of practice suggests that no more intertext is created than the immediate situation calls for. We may say that the intertext is a situational property. That is, related to a particular actor, reading a particular text, for a particular purpose, in a particular context. In contrast, the text corpus of oncology merely refers to a collection of texts.

For the physician, then, creating intertext is a practical endeavour, for practical purposes, with constrains and possibilities associated with the situation and the corpus at hand. No more logic or consistency across documents, than is required by the needs of the practice, are mobilized as the physician creates the intertext between what he deems to be the corpus of relevant documents for the health care task at hand. Creating intertext is a question of making *intertextual* relations between texts for a specific purpose.

Intertextuality

There are at least three types of intertextuality at play in forming intertext, namely, the complementary type, the intratextual type, and the mediated type. The complementary type of intertextuality is perhaps the most intuitively recognizable one of the three types as it refers to how documents complement each other to make up the syntagm, i.e. the meaningful whole (Riffaterre 1980) as seen above. The intratextual type of intertextuality is perhaps less evident in our example above. The intratextual type refers to instances where a text is superimposed upon another text. In addition, imagine a situation where establishing intertextuality between two texts requires or is mediated by the shadowy presence of a third text – this is the mediated type of intertextuality.

Conclusion

The study suggests that the ensemble of documents, used and produced in oncology, may be said to form a corpus of written texts. On the basis of the corpus, or subsections hereof, the actors in oncological practice creates intertext between what in a particular situation, for a particular purpose, are relevant (complementary) texts. This is an integral part of their work practice. The intertext of a particular situation may be constituted by several kinds of intertextuality, including the complementary type, the intratextual type, and the mediated type. One effect of creating intertext, based on the corpus of written texts, is to draw the distributed activities of oncology together.

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