

INNOVATIVE EMERGENT ORGANIZATION OF ACTIVITIES: AN ETHNOGRAPHIC EXPERIENCE IN ICT-RELATED ORGANIZATIONAL CHANGE

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Abstract

In order to develop some reflection about SPD and, particularly, the place it makes for Ethnography, I outline some traits of an ethnographic research I conducted in an organization before, during and after an ICT-related change.

The material on which the paper is based comes from an extensive, ethnomethodologically informed, ethnographic study of natural occurring working days in an Italian medical emergency centre. During the research, the design and introduction of a new computer management system – and of related organizational changes – occurred: its processual implementation, and the implications of this change on organizational work practices, constitute the issues from which the paper goes forth.

After a brief description of the coordinated everyday work in the centre, the paper discusses ICT-related changes and users group's resistance that mediated the transformative potential of new technologies: the rejection of the abandonment of 'old' cooperative work practices, as well as the emerging of new ones. Participants, in fact, collaboratively designed and enacted an innovative practice, accompanied by its condition of appropriateness, ways of application and recognition.

Turning attention to SPD and the tasks that Ethnography could accomplish in/for it, I argue that, in the research field itself as well as in the minute and situated acting of its members (instead of in theories), the ethnographer's look can find not only problems, but also what SPD calls visions of solution. Moreover, I think that Ethnography, particularly ethnomethodologically informed one, enables to catch, in its minute details, the endogenous organization of activities in a field, allowing so the researcher properly acting in it. In fact, solutions to problems emerging in a field must be coherent with the contextual organization of activities of that field, they must be proper and suitable to the conformation of the actions setting up that specific context.

Keywords: Ethnography, ICT, Native, Organizational Change, Work Practice .

INTRODUCTION

I order to develop some reflection about SPD and, in particular, the place it makes for Ethnography, I outline some traits of an ethnographic research I conducted in an organization before, during and after an ICT-related change. It is an extensive, ethnomethodologically informed, ethnographic study of natural occurring working days in an Italian medical emergency centre.

After a brief description of the coordinated everyday work in the centre, I will discuss ICT-related changes and users group's *resistance* that mediated the transformative potential of new technologies. I will try to outline the emergence of an innovative, situated organization of the activities in the field, of a new social work practice collaboratively designed and enacted by field's inhabitants (*natives*).

Starting from this, I will finally draw some reflections trying to 'enlarge' Ethnography potential for/in SPD both behind and beyond the role, assigned by SPD, of organizational problems finder.

SCENARIO

The medical emergency “centre of coordination” (Suchman, 1993) of Trento is principally composed of four rooms, called boxes, aligned along a single corridor and separated between them by a glass wall (see Figure 1), so to allow operators to know what is going on in the box to side and to gesturally communicate from a box to the other. Inside each box two operators work in close cooperation and alternate themselves, during the work shift, between the roles of call-taker and dispatcher. It is important to highlight that the engagement of the call-taker role implies also the task and the responsibility to make all the necessary decisions concerning incoming calls. I will define the above mentioned roles, respectively, operator A and operator B.

Emergency centre operators communicate: via telephone with callers, having the immediate task to gather crucial information in order to determine the accident, the place and the patient’s conditions; via radio with first aid units, an informative, quick and largely unidirectional communication; in co-presence with colleagues, an internal parallel communication in order to manage the external emergent one with callers and first aid professionals (Fele, 2005). All these communicative work practices are produced and coordinated in real time by the participants, through talk, mediated or not; nonverbal communication, in its kinesics, proxemics and gestural components; the use of tools, technological artefacts and the like. This situated coordination, that allows participants maintaining a dynamic monitoring of the ongoing situation in which they insert their own flexible contribute, finds an help in another IT, the automated one which is the computer system. Through it operators manage incoming and outgoing, radio and telephone, communication; select and monitor medical vehicles; locate the accident on a digital map; record information; get real-time awareness of colleagues’ activities.

In order to synthetically describe the characteristics of the *social arena* of the technological and organizational change, I’ll use a four reading levels map (Figure 1). The first level is that, cartographic, of the physical spaces. The second one is that of chromatic areas, which shows those that have become places, the ‘competence’ zones of each group of actors (third level, written in red): the hospital, with the health company managers’ offices; the centre managers’ offices; the boxes of operators and their coordinator; the medical vehicles garages, where first aid units members stand; the common areas frequented by operators, first aid professionals and, just in case of meetings, managers (which otherwise simply cover the corridor and appear at the glass door of the box).

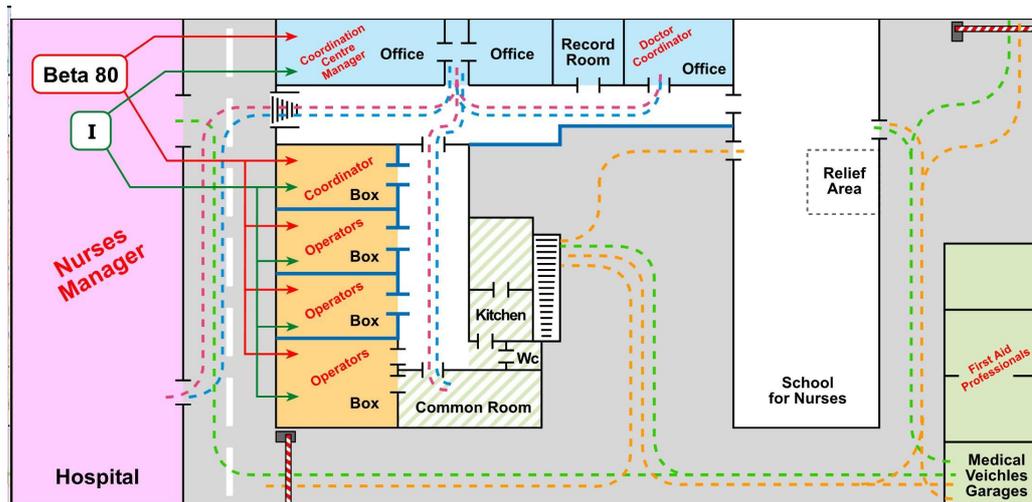


Figure 1. Social arena map.

The last level is that of material, interactional and cultural trajectories of each group of actors. The interactions between the various managerial figures, on one side, and the operators, on the other side, is minimal: almost reduced to formal meetings. Last actors of the arena, the system developers (*Beta80*) and I, interacted with both groups, but the developers, differently from me, interacted, in a first stage, with the managers only and, only in a second stage, with the real users.

ICT-RELATED ORGANIZATIONAL CHANGE

Main interest changes

New computer system main innovation regards information management and consists in the shift from “Accident” form (Figure 2), which were opened and filled by operator in case of aid and which was preformatted so to contain all the necessary information, to “Call” form, which comes filled for every call. Operator, if it’s necessary, have then to fill an “Aid” form, a “Mission” form for each vehicle chosen and dispatched for that aid, and a “Patient” form (see Figure 3).

Figure 2. “Accident” form.

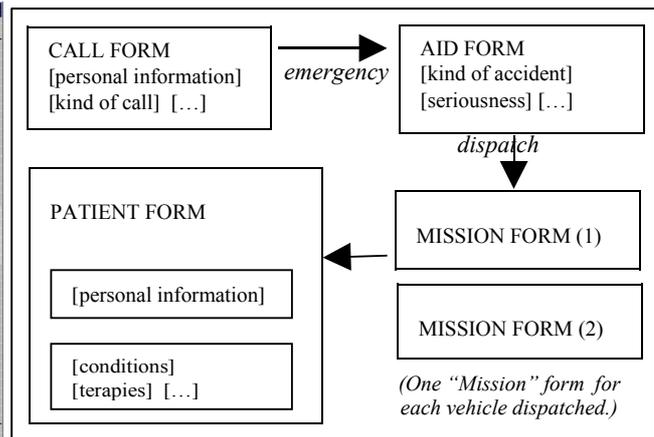


Figure 3. New system’s forms.

Another organizational change, instead, concerns boxes’ infrastructure and the organization of the cooperation between the work-shift colleagues. With the old system, each box was equipped with: a workstation with double screen (one for data entry, the other for the cartographer) and a PC linked to the digital phone, both used by operator A; a second PC for data entry, used – as, in the majority of cases, the radio-set – by operator B. Now, instead, each box has two workstations with double screen (one for calls management and data entry, the other for the cartographer), and two radio-sets, so that each operator can potentially work by himself.

Implications and resistance

One first implication of such change consists in the coming to light of a new kind of information. In fact, it does not regard more only the various characteristics of the accident, but also information somehow organizational: how many calls come in a determined period of time, of that type and in that percentage, which is the everyday workload of an operator. It turns out obvious that such information is as much useful to the managers as its collection complicates everyday work of the operators. This kind of information, moreover, is never available for operators: it comes collected, managed and archived by the computer system and it can then be recovered, dealt and turned into knowledge only by members of the managerial group. The prospective organizational changes that would have come decided on the base of such knowledge would have reached the professionals unexpectedly. This constitutes a clear example of what Eriksen (2002) defined *over-empashized economic accountability*.

The new computer system, by itself, also stimulates the abandonment of paper supports use. Nevertheless, as emerged from the informal interviews I led on the field, professionals were not disposed to totally abandon *pen and pencil* system. In a work of many, and socially very recognizable, responsibilities, in a work where the temporal pressure is as high as the stake, to completely rely on an automated technology produces insecurity. During new system design, an operator said:

It will be necessary, however, to hold paper sheets in case it would take place a problem with the computer.[...] I feel myself surer with some paper sheets on my desk. [R. 05-02-22]

Moreover, *pen and pencil* system is protagonist of various communicative and cooperative practices between colleagues that operators didn't want to give up. For instance, as we can see from the following fieldnotes sample, it can replace what Artman and Wærn (1999) defined *talking to the room*:

During the telephone interview [operator A] attracts [operator B]'s attention, touching his shoulder, and asks him for to dispatch, showing the sheet on which [operator A] has noted down the address. [Operator B] dispatches, while [operator A] continues giving 'to do indications' at the phone. [Fieldnotes: 02-18-05 15.09]

The use of paper supports, besides, reduces talk between colleagues and therefore allows them to better insert their mutual communications in the flow of the forcedly verbal ones with the outside. This constitutes an example of artefact-based coordination of cooperative work.

Emergency call coming from Trento-city, which should therefore have been taken by the box4 (territorially competent), but [operator A, box4] is engaged in another call and [operator B, box4] is in pause. Therefore [operator A, box3] takes the call. Few moments later [operator A, box4] enters box3 and asks: "Was it ours?". [Operator A, box3] gives her a sheet with notes regarding the call. [Operator A, box4] takes them and comes back in her box for the dispatch. [Fieldnotes: 02-02-05 17.07]

The last issue I want to address concerns the degree of collaboration and cooperation between operators. With the old system, data regarding the accident could be inserted by both the operator A and the operator B. The latter came anyway to acquaintance of that information since he had listened to the colleague on the phone, since the colleague had informed him in order to allow the dispatch or a consultation, and/or since he had read the paper notes taken from the operator A during the call. The new system, instead - with the breathtaking increase of the data to insert (every call) and with the possibility, for each operator, of taking calls and dispatching at the same time of the colleague - tends to reduce the possibilities of achieving an adequate degree of mutual awareness and discourages communication colleagues, diminishing therefore the cooperation degree.

However, after - and despite - new system implementation, operators substantially continued to work in couple (fact still allowed by physical spaces of the box), putting in existence two different, rather interchangeable, practices. The first one consisted simply in behaving like if nothing, from this point of view, was changed (non-use of new technologies). The other one consisted instead in deciding who was the operator A for every half of the work shift - up to here nothing new - but in leaving a wider margin to roles' compellingness. Joking on the idea of what I define the *operator-cowboy* - the first who takes the call 'gains' the role of operator A for *that* call - they moved first steps in this direction (misuse). The "choice" for the one or the other depends a lot on the kind of relation existing between the two colleagues. An operator, for instance, could adopt the first practice (the traditional, 'normal'¹ way to do) with some colleagues, while the second one (the new, 'joking' way to do) with other ones, with which (s)he were much more familiar and (s)he could joke. Moreover, whatever the relation was, the cooperation inside the box was a taken-for-granted: nobody tried to work by himself, neither among the little group of new system fans, and nobody showed the need for assuring herself about colleagues' agreement on this. The various couples of box-colleagues collaboratively found, *each* time, their way to cooperate. They did so in context, during the work flow itself, and mostly by tacit agreement: by body positioning in relation to artefacts and the colleague, by gaze, by gesture.

A new social practice - accompanied by its conditions of appropriateness, ways of application and recognition (accountability) - socially emerged inside the field. In my opinion, we are dealing with something that we can define as an inNovATIVE organization of the activities. With this wordplay I would underline two issues. First, the way in which professionals organized their own work activities is innovative. On one side, it includes a new practice and, in a way, a newer one than the practice 'suggested' by managers, or, better, an innovation of the latter itself (a real revolution, literary speaking). On the other side, it is innovative in its introducing the possibility of a situated choice regarding institutional work procedures. Secondly, this new organization of the activities is native: it is a situated practice, endogenous to the phenomenal field [Garfinkel, 2002], collaboratively created and achieved (product an reproduct) by participants; it emerged in the field through a sort of collaborative improvisation.

¹ Obviously it is the 'normal' way of doing *for* the professionals, while we can imagine that, for the managers, it is 'normal' to apply new managerial instruction.

REFLECTIONS ON SPD AND ETHNOGRAPHY

The research I talked about here was not an “action” (or “intervention”) one. Nevertheless, starting from this experience I would now develop some reflection on Ethnography potential in relation to SPD. SPD reserves to this methodological approach the role of problem finder and talks about “to identify outstanding problems in the area of social practice” (Jacucci 2007). This is certainly something that an ethnography can do. In the above outlined case, for instance, the principal problem I found was the lack of cross-boundary networking between the managerial group and professionals. However, I think Ethnography, in its supporting SPD, could accomplish much more tasks.

In my opinion, the case here in exam demonstrates that, in the field as well as in the minute and situated acting of its members, the ethnographer’s look can find not only problems, but also what SPD calls *visions of solution*. Creativity and collaborative improvisation are not limited to artists. On the contrary, we find them in everyday life, in the contingency of improvisational interaction (Mead, 1932), in mundane conversation as well as in organizations. As Weick (2001, p. 58) wrote, “people are able to accomplish collectively what they could not do individually. The design that produces this complex mixture tends to be emergent and visible only after the fact”. SPD seems to reserve this solutive function to theories, but, to me, theories unavoidably enter the field with the researcher, embodied as they are in his/her look. They surely can “inspire” him/her – and they actually do in the observational phase as well as in the analytical one and in the “creative design phase for developing social practice innovations” (Jacucci, 2007) – but I think it is not (only) to theory principles that we have to look in order to suggest and co-construct organizational solutions to change.

In fact, another issue we have to bear in mind is that solutions to problems emerging in a field must be coherent with the contextual organization of activities of that field, they must be proper and suitable to the conformation of the actions setting up that specific context. On the one hand, this means, again, that we have to start from who inhabit that field, since participants embody in their acting the rules of organization of context itself. On the other hand, this leads me underling an ethnographic ‘traditional’ aim, a one that we can’t leave behind. In fact, ethnography, particularly ethnomethodologically informed one, enables to catch, in its minute details, the native, endogenous organization of activities in a field, allowing so the researcher being not, permit the metaphor, an elephant in a glassware.

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