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Information Systems Maintenance as a Participatory Practice

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Abstract

Starting from the evidences of a public welfare information system case study, the aim of this position paper is to stimulate the debate on information systems maintenance as a process entailed in different communities of practice

Keywords: IS maintenance; Participation; Practice based approach

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INTRODUCTION

Being at the beginning of my research project, this paper wants to be much more an occasion of discussion rather than a coherent account of the phenomenon of Information System maintenance.

Thus, in the following pages I would like to reflect on what maintenance does mean and how it is accounted for it in the literature. I will base this reflection by relating it on my personal work experience in a Municipal Public welfare office in the north-eastern Italy and on the preliminary interviews I did in the last months. Concerning the first one, it is useful to provide a very brief explanation of the setting that became my Ph.D project research field. Around ten years by now, Friuli Venezia-giulia's Health and welfare regional department started the implementation of a specific information system to collect data about social disease, based on a web software: Cartella Sociale Informatizzata (CSI). Herein data are input by around 300 social workers across the regional territory, each of them stores data from the patients they have in charge. This professional community has a "technical counterpart" in the personnel of the regional software house, whilst the Head department management provides the guidelines for implementation. There are a lot of classification to distinguish different types of Information systems; if I have to decide in which of them to position this one, I will argue it is possibly a Strategic Information System. Indeed, data are too specific to speak about a generic Management IS, and the multiple purposes data are used for induce not to classify it as an ERP.

Coming back to the main topic I want to focus on, I would like to quote Tzoukas (2009), according to whom "*information system can be seen as a managerial activity or a process in the context of professional practices*". This distinction signs the way in which maintenance can be red, and the staring point of my further argumentation.

FROM FRAGMENTATION TO RELATIONAL PROCESS

I want to be a little rough and ride the epistemological subdivision proposed by Tzoukas by stating that in a traditional managerial way of accounting for maintenance we can speak about a "kingdom of fragmentation", whilst a more practice-based one helps to reconstruct it as a relational whole.

Reviewing the mainstream management IS literature (as well as much of the computer science one), it is possible to highlight how almost everything related to IS implementation is minutely fenced.

Maintenance is the activity (or better, the set of activities), that occurs during the so called post-implementation phase, the final step of software development (Avison & Fitzgerald, 2000). Herein, the functionality of the system is periodically tested through that more or less structured toolbox called Post-implementation review (PIR) (Gwillin & Al., 2005). Programmers stop to be viewed as designers to wear the clothes of maintainers, charged by totally different tasks such as bugs fixing and support providing. As Avison and Fitzgerald (*ibidem*) pointed out, often the personnel itself changes, too. End-users are generally ignored; whereas they are taken into account, is to stress the importance of a robust preliminary training and correct alignment between "*management, technology and people*" (Nicolau, 2004).

Simplifying and reifying this perspective, it can be viewed as a collection of snapshots functional to the managerial activity of modelling, planning and controlling business flows. All this "stop and go" elements, self standing punctual happening in the software life cycle, lose the richness of everyday life activity. As Ciborra pointed out "*as soon as you leave the domain of the methods, procedures, and systematic ways to organize and execute the work [...] you enter the dark world of everyday life, informality and practicality. It is the realm of practical intelligence, of the artistic enrichment of procedures, shortcuts and transgression of formalized routines*" (1992).

How to account for this realm that runs out of the methods domain it is exactly what I understand in Tzoukas words: to reconstruct a footage of maintenance as a process that entails different communities of practice.

Thus, before considering the situated modes to operate a strategic asset - as Ciborra (*ibidem*) claims for - , it is important, in my opinion, to analyze how, in maintenance, those communities, along with technologies, other artefacts, practices, rules and so on, shape the network in which they are posed. In this sense I would like to analyze maintenance as a participatory practice.

MAINTENANCE AS PARTICIPATORY PRACTICE

To assume a practice-based approach means to look at “*how, in specific context, facts become so, how the order is performed, how things get to a stabilisation – in a certain way – and how changes occur*” (Gherardi e Nicolini, 2005).

So to say, it avoids the logics of programmed and planned action, by suggesting to concentrate on “*what people actually do instead of what they are supposed to*” (Pickering, 1992); to look at how the order is performed let to grasp the dynamical characteristic of the process, avoiding the traditional logic of self-standing and concluded phases; to understand how the order in performed means to look at how maintenance is constructed on a daily basis, starting from the different workplace realities.

By calling this practice “participatory”, I am addressing a particular issue in IS studies that deals with user involvement and power-related problems. Rather than underlying the dichotomy Management/user or programmer/user that leads the debate on democracy and power in IS development and implementation, I will use the term “participation” as a key to underline the way in which the conveyed of each element of the network contributes to shape the maintenance activity and the network itself.

REFERENCES

- Avison D., Fitzgerald G. (2000), *Information Systems Development: Methodologies, Techniques and Tools*, Blackwell Scientific Publications, Oxford
- Ciborra C. (1992), *From thinking to tinkering: the grassroots of strategic information systems*, Information society (8), pp. 297-309
- Gherardi S., Nicolini D. (2005), *Actor-networks: ecology and entrepreneurs*, in Czarniawka B., Hernes T. Actor-Network theory and Organizing, Liber & Copenhagen Business School Press
- Gwillim D., Dovey K., Wieder B. (2005), *The politics of post-implementation review*, Information Systems Journal (15), pp. 307-319
- Nicolau A.I. (2004), *ERP systems Implementation: Drivers of post-implementation success*, IFIP International Conference 2004, 589-597
- Tsoukas H. (2009), *Information Systems as institutionalized reflexivity: phenomenological insights*, in Poullymenakou A., Pouludi N., Pramataris K. (eds.), 4th Mediterranean conference on Information Systems, Athens, Greece, September 25-27

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