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FROM SOFTWARE DEVELOPMENT SERVICE PROVIDER – HELAS, A CAPTIVE RESOURCE! - TO ONE'S OWN PRODUCTS AND BRAND: MAXIMISING RIGOUR AND RELEVANCE IN ORGANISATIONAL PROBLEM SOLVING

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FROM SOFTWARE DEVELOPMENT SERVICE PROVIDER – HELAS, A CAPTIVE RESOURCE! - TO ONE'S OWN PRODUCTS AND BRAND: MAXIMISING RIGOUR AND RELEVANCE IN ORGANISATIONAL PROBLEM SOLVING

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Abstract

As described elsewhere (Jacucci MCIS07 2007), *Social Practice Design* (SPD) seeks to ensure that the potential benefits of envisioned novel technologies can be realised. SPD is an extension of Participatory Design (PD) to the implementation phase of information systems, using action research, participatory design, and counselling.

This paper describes a case of organisational problem solving by counselling, using the central portion of the new *Social Practice Design* approach, in which counsellors' interpretations and suggestions are intertwined with turntaking proposals by company personnel, in an intentional promotion of the emergence of new social practices.

The portion of the new *Social Practice Design* approach on which we concentrate our attention in this paper includes the following *organised actions*:

- Counsellor's *creativity* suggests in appropriate *perspectives* one or more relevant *principles* from known *social theories*, capable of providing leverage support for addressing each *how-question* expressing a problem issue, previously emerged from ethnographic observations
- Tentative *visions of solution* are counsellor generated by confronting each *how-question* with corresponding *theory principles*
- Consolidated *visions of solution* are co-constructed together by counsellor and managers/personnel in conversations where the counsellor generated tentative visions serve as germs only: these are considered together, questioned, modified as needed, or abandoned.

This paper thus focuses mainly on the one aspect of the experience of practicing SPD with user groups at a European industry, that includes elaborating with company personnel *visions of solution* of problem issues in their organization, emerged during ethnography based phases of SPD work (reported at MCIS06: Jacucci, Tellioglu, and Wagner 2006)).

Recurrent topics in the *principles* section of this paper, giving rise to *vision of solutions* to *how question* issues, point principally to the involvement and agency of company personnel (individually, and in group setting). This substantiates our counselling approach.

A prominent feature exhibited by our counselling approach to the generation of *visions of solution* in SPD, is a contrast between rigour and freedom: maximum *rigour* required in following the method, maximum *freedom* allowed in creating relevant associations: a significant encounter of phenomenology and ethics?

The issue type, and the implicit priority of strongly felt *how questions* and *visions of solution of socio-organisational and business nature*, emerged clearly in case study conversations. Addressing *how questions* with appropriate *visions of solution* allows organisations to learn and undergo change, through the adoption of new *social practices*.

Keywords: Information Systems Development, Social Practice Design, Participatory Design, Action Research, and Counselling.

1 INTRODUCTION

1.1 Conflicting perspectives in ISD

The Information System Development (ISD) discipline is structurally afflicted by irreducibly conflicting perspectives: while technical perspectives ask for rational method, social perspectives ask for a non-rationalistic, phenomenology-inspired approach. The former are populated by (objective) concepts like generic functionalities and methodological procedures; the latter are populated by (subjective) concepts like case interpretation and qualitative analysis. The former imply processes structured in architecture, phases, procedures, steps, dependence, and workflow; the latter imply organisation narrated in paths including sense making, action, feedback, interpretation, awareness, and cooperation. As a result, analysts/designers striving for the successful introduction of technology in organisations need both the ability of understanding and designing the artificial, and of reading and making a difference in social phenomena: of *unveiling the world* (Ciborra) - i.e., of identifying noteworthy, Heideggerian *apparitions* in everyday life, underneath reassuring, false *appearances*; an everyday life populated by actor's mood, technology drift, need for improvisation and *bricolage* -, and of promoting the emergence of new social practices, in the ever un-scindible union of people, computers, and work. In the social perspectives, each organisation is a unique case; furthermore, each analyst has different tacit abilities of *sense* reading, and of *sense* giving (Polanyi). The intervention of the analyst in the organisation produces, for at least these two reasons, situated, contextualised, idiosyncratic results: it always 'could have been otherwise'. And, its only, pragmatic legitimacy rests on the establishment of an honest cooperation between the two parties, and in their mutual interest in solving together the problem, that they together have identified (people say, any child's mother is always the best possible mother of that child).

Yet, albeit not rationalistic, the social approach, and the attack to problem issues informed by social perspectives, cannot be irrational: albeit not universal, the social approach still consistently has to strive for *maximizing rigour and relevance*; albeit not amenable to be constrained in rigid methodologies, it still firmly needs a rich interplay of *strong ideas* and *effective social practices*, and the careful realization of respectful but effective, *organised cooperation* of all actors concerned. So, the social approach needs to be *organised*. As well.

For success, in conclusion, also in the social perspectives positive change has to be proactively seek-ed by arming one selves with awareness, intention, and cognition. Should we not employ the word *design* even for the intentional, aware, cognition armed, active and proactive promotion of the emergence of new, necessary, desired *social practices*? The intentional use of the word *design* - explicitly oxymor-ic, when applied to social practice - intends to hint to the need of balancing an existing perceived ample unbalance of the use of resources in ISD research and practice, a bias towards the technical, rather than the social. We take this course of action in a conscious attempt to increase the impact of ISD research on ISD practice.

1.2 The Social Practice Design approach, and the aim of this paper

As described elsewhere (Jacucci MCIS07 2007), *Social Practice Design* (SPD) seeks to ensure that the potential benefits of envisioned novel technologies can be realised. We consider SPD an extension of Participatory Design (PD) to the implementation phase of information systems, using action research, participatory design, and counselling. This paper describes a case of organisational problem solving by counselling, using the central portion of the new *Social Practice Design* approach, in which analysts/designers/counsellors interpretations and suggestions are intertwined, in a recursive interplay, with the production of new awareness and turn taking proposals by company personnel, in an intentional albeit unstructured promotion of the emergence of new social practices, substantiated by *co-design* and *co-construction* on the part both of counsellors and of company personnel.

The portion of the new *Social Practice Design* approach on which we concentrate our attention in this paper includes the following organised actions towards the emergence and consolidation of *visions of solution* for problem issues previously emerged from ethnographic observations:

- Counsellor's *creativity* suggests in appropriate *perspectives* relevant *principles* from known *social theories*, capable of leveraging support for addressing each *how-to-cope-with-this-problem-question*, '*how-question*' in brief
- Tentative *visions of solution* are counsellor generated by confronting each user-consolidated *how-question* with corresponding *theory principles*
- User-consolidated *visions of solution* are co-constructed together by counsellor and managers/personnel in conversations where the counsellor generated tentative visions serve as germs only: these are considered together, questioned, modified as needed, or abandoned

This paper thus focuses mainly on one aspect of the experience of practicing SPD with user groups at a European industry: elaborating with company personnel *visions of solution*, i.e., visions of how to cope with problem issues in their organization, that have emerged during previous, ethnography based phases of SPD work (reported at MCIS06: Jacucci, Tellioglu, and Wagner 2006)). The paper describes the elaboration of *visions of solution* in the application of the SPD approach, while discussing aspects of more general interest:

- The emergence of organizational problem issues in the form of *how questions* from ethnographic observations, and their understanding/modifying in conversations with personnel
- The emergence of *visions of solution* by interpreting the *how questions* with the help of principles and theories, and their consolidation/modification in co-construction work
- The recursive interplay between counsellors' design work in their set aside 'lab' site, and co-construction work between counsellors and personnel at the company site
- The interplay in SPD between counselling, participatory design, and action research, in creating strong involvement of company personnel and managers, and appropriate conditions to encourage people to think and express themselves.

1.3 The case

The European research project at hand leverages model based enterprise systems to promote SME adoption of sustainable ICT support for cooperation in global manufacturing. Workplace observations have been carried out in an Eastern European outsourcing service provider to a French-American, in the field of software development. Attention of project researchers has been attracted, and focussed after the fact, on salient features of strategic business management culture, in a company with top quality technical competences and work practices.

These, characterised by a strong software engineering culture, exhibit sophisticated knowledge management practices, and tools for cooperation (long e-mail threads, distributed platforms, cheap video-conferencing), in the distributed setting of global outsourcing. The company has achieved in over 15 years of successful activity a stage at which the position they have created for themselves allows them to discover new limits: they now perceive to find themselves in a captive resource business setting: lack of direct access to the market; de-concentration of best personnel skills and competences from business mission critical areas (like CRM, and new product development); weak marketing strategy. In a gigantic effort of striving for survival, they now run the risk of lack of core business identification, and of dispersing themselves in multiple parallel unrelated opportunistic production activities. These facts all indicate need of more strategic business management, while lack of available money generates unnecessary waste of most precious intellectual resources, like e.g., the delayed adoption of client's software development platform.

How to create one's own brand and direct access to the market, either with own new product lines, or by offering outsourcing provision to other potential customers, in order to escape the captive resource trap? This *how question* emerged clearly from the field study, a final positive answer to it resting in the hands of company personnel and management, of course, albeit requiring external enabling, counselling support, expert in the design and adoption of new appropriate social practices, promoting the needed breakthroughs in the strategic business management and organisation areas of the company.

2 LETTING *HOW QUESTIONS* EMERGE AMONG COUNSELLORS

How questions in this paper refer to needs/requirements expressed with an interrogation form of the type: *how can we solve this problem?* It is customary in problem-based approaches, and a traditional image of problem solving activities in general.

This section describes how the counselling/consulting group, working on its own, first formulates early brute form *how questions*, partly repetitive and in excessive number, spontaneously emerged from internal group discussion of work place ethnography notes. Refined *how questions* result of an aggregation process starting from the early ones, clustering them according to themes and relevance, to be tested and consolidated through feed back, and tackled later on in subsequent phases of production of *visions of solution*. Counsellors arrive in this way to define *deep needs* of individual groups and of the entire organisation.

We have often observed, in performing SPD paths - for example in confronting the content of interviews with key persons in the organisation -, that superficial needs are volunteered by personnel – like technology support to better manage group meetings, including a technology provided script for meeting activities, and a template for minutes to be taken -, and hide deeper needs and related requests, not elicited spontaneously – i.e., managing organisational and communicational meetings effectively with respect to reaching their objectives -. This relates to subsequent activities, in the company, where, in confrontations between counsellors and clients on the results of ethnographic observations, clients are brought to acquire greater awareness of their real needs – a first small piece of their training path.

In fact, here is a natural sequence of activities: first, preparatory conversations with managers, elicitation by managers of key issues, indication by managers of personnel and work activities to be observed with ethnography work place studies; second, dialectics of i) ethnography, ii) conversations, iii) group meetings consolidation – as thesis, antithesis, synthesis -:

- Ethnography to observe and gather material on key issues, also asking questions to get explanation or meaning of things observed
- Conversations to extract perceived/declared needs, to contrast/integrate observed and perceived/declared needs, analyse findings and let emerge/formulate how questions
- Group meetings together with personnel, to collect user feedback and promote user awareness, and to consolidate how questions

Ethnographic observations of people at work are carried out with audio and video equipment, and address both group meeting and individual work settings. Three people of the counsellors/consultants group are involved: observing, note taking, audio and video recording. Observations and notes are read, confronted, discussed within 12 hours of the observation session in a counsellor group meeting of the three people involved. In this group work, ethnographic content is exposed to the different, specific individual background and knowledge of the three participants. Hypothesis of how questions spontaneously emerge and are critically evaluated and eventually accepted. A field study report ensues. A published account of this case related ethnography field study is available (Jacucci, Tellioglu, and Wagner 2006).

The activity undergoing in the group meeting for the analysis of ethnographic notes, to let emerge brute form *how questions*, is an activity of sense reading, of execution of the tacit ability of sense making of details about a focus, that Polanyi calls personal knowledge (Walsham 2004, Polanyi 1966); the ability to detect a focus of sense in the middle of details, rather, as in this case the focus is unknown as the sense: one starts from the details only, looking for a focus that allows sense making of these details, and trying to find it with one's own tacit ability.

For example, a detail could be that they say: “the manager uses a lot of time at the end of each month to find money for salaries”. Other detail: “we do not use the same software development of our customers, ‘cause licences cost too much” (although this entails a huge waste of time). Possible focus of sense making from these two details: not enough financial resources?

Next detail: “we have ideas and technical abilities to develop a new product of our own, but we would need to stop serving our current customers, and how would we survive?” Sharper focus from all three details: captive resource?

Letting emerge *how questions* is an activity populated of revealing phrases, of iterations in conversation, of circumstances being pointed out, that point in turn to a candidate organisational need; of meaningful need-indicating *apparitions* – as would be called by Heidegger and Ciborra -, meaningful to organisational experience/knowledge (see examples below), arising either from work place observations, or else from direct declarations of personnel. *Apparitions* emerge and are clustered, by sense reading, under common question marks.

Here below are examples of brute force *how questions* emerged, with a few words we have added, of contextual explanation (these questions will accompany us in the sequel of the paper):

2.1 Long, reactive e-mails with clients: need proactive communication initiatives?

Customer questions on products start developer-customer conversations on problem issues. These give rise to long e-mails containing the complete exchange on the issue, to completion and problem resolution.

Their problem solving knowledge is archived and managed through these long e-mails: they refer to them, and exchange these e-mails among peers, and use them further for their own personal memory (Jacucci, Tellioglu, and Wagner 2006).

2.2 Democracy in problem resolution during meetings, no document driven activity management: sufficient business management culture and skills?

Company personnel are very cooperative and teamwork oriented. Problem-solving meetings of developer groups, called by the CEO of the company, appear to be self-managed. These meetings proceed in a very effective, democratic way, while the CEO waits for the solution to emerge by itself, on initiatives of meeting participants. Participants proceed auto directed without apparent interference or support to the very end, to task definition and assignment.

Procedure-defining documents do not seem to be part of the organisational culture of the company, except for technical tasks of software development, but not for ordinary management processes.

2.3 Technical descriptions in marketing material: sufficient marketing culture and skills?

Their marketing material is written in a technical language unsuited for purchase managers of their client companies.

2.4 No contact with end-customers: need to develop own products, brand, and distribution?

They provide services of software development to their customers, who outsource their ‘virtual’ electronic component software design products. But have no direct contact to the market for this kind of products, to the end customers of their service provision clients.

2.5 No money: are they stuck in a situation of captive resource?

CEO manager, skilled in the field of the business (design of wired-on software components), is busy with financial tasks at end of month: he has to spend time to patch up ad-hoc solutions in order to put together money for salaries. They have a direct, efficient employment channel of best students from technical university, to which they are well connected, but most often loose them to competing employing companies, as soon as skilled enough, after a period of training on the job. So they need to replace them continuously with fresh and inexperienced ones: they cannot afford paying them enough to keep them from competing job occasions in the market. Developers, talented and capable people, waste time and intelligence in translating between different software environments: they do not use same development environment as clients because cannot afford buying licences. They would have the ability to design new virtual

component products for the market, but need to divert their staff from outsourcing service provision, and they cannot afford this. They need a marketing expert, but have no money to hire a real good one; so, they assign marketing to a non-skilled employee, to self-train on the job.

3 STIMULATING USER FEEDBACK AND USER AWARENESS ON *HOW QUESTIONS*

The basic *how questions* – the needs - considered with personnel in the company are similar to those elicited in the previous section. SPD and counselling have addressed middle management and personnel, and also the company CEO, indicating to him that these were issues chosen as ‘exercise’ for improvement, following tensions emerged in ethnography observation, and agreeing with him type and list of personnel to be involved. Part of the awareness/ involvement/ /empowerment work was performed with the technique, well established in PD, of design games, as described elsewhere (Jacucci, Tellioglu, and Wagner 2007). Personnel, middle management, and CEO, all have very well received SPD and counselling, albeit these contrast with a top-down approach in the company. In the end, middle management is now taking responsibility, and attempt proposing initiatives towards their own solution.

We report here some user feed back recorded from conversations with the company CEO, alone in the meeting with counsellors, and personnel in groups. In agreement with CEO, confidentiality has been granted to all participants. In these meetings, their awareness of problem issues behind the *how questions*, and of their importance, result of a group dynamic process. Their comments were very much aligned with what had been observed in ethnography, of which they were informed in the meeting. Some *how questions* resonated in their own words more than others. Their comments were used to consolidate the *how questions* themselves.

One word of caution is in order here. As all counsellors know very well, making emerge critical issues in conversations with company personnel is much easier than things that go well: the process is generative (*this does not work, that should be done better*, etc.). Things that work are invisible to the eye and to the conscience: this is an obvious attention of any activator of training and counselling process. Yes, we must start from here, from the bad things, but things must be taken with care and weighted carefully. Here are excerpts of the conversations:

3.1 Long, reactive e-mails with clients: need proactive communication initiatives?

CEO: *We have thought and discussed, at the beginning, of developing a distance-learning course for our customers. But we have not pursued the issue.*

3.2 Democracy in problem resolution during meetings, no document driven activity management: sufficient business management culture and skills?

CEO: *We are under current continuous changes. Our company has many restrictions, myself have no industrial experience, and this experience has been internal as entrepreneurs, employees very young, and no experience outside. Ours has been an academic way to build a business...*

Managers (all voices have been boundled together): *Our boss thinks we can access what he thinks, but with a one-way mode only, no feedback required, he does not check if we understand his orders. Company in permanent reconstruction. Problems in communication between different departments. Between the board and lower management level, and employees. Faster decisions, sometimes we have good ideas how to solve problems, but decision is not taken fast enough, as CEO is taking care of everything. Need a more fixed structure, of who is in charge, which of the various managers is to give answer to problems. No strict allocation of human resources to a product lines, it is done only for one project; hard, today I am a manager, without a fixed budget for a time period. Problem of time pressure, everywhere, every time. Interrupts, mainstream of work interrupted by sale requests, or other more important projects, frustration in the team. There are not enough procedures defined, and the few defined procedures are never used Overload of work, we have more to do that can do: e.g., one of us*

had to become chief of marketing/sales last year, while keeping previous duty in CRM, and also need to occupy himself with assistant finding ...

3.3 Technical descriptions in marketing material: sufficient marketing culture and skills?

Managers: We have thought sometimes about these problem, there are two sides: product line managers do not have skill and time to become product marketing manager with this skill, yet we cannot afford more people with our budget. You cannot work in any side of this company if you are not an engineer, you cannot employ a marketing person if you are not an engineer. It should be stated in the procedures that I have to go to engineers and have his time to talk about marketing: I prefer procedures....

3.4 No contact with final customers: need to develop their own products, brand, and distribution channel for that?

CEO: Extend portfolio of products, more value with end users. Planning for distribution in different channel, become competitor with outsourcer on this product, now the relation with client is in the hands of the outsourcer....

3.5 No money: are they stuck in a situation of captive resource?

CEO: A portfolio belonging to commodity. Limitations in the market. Cannot have anything to differentiate from competition, plus this restricting agreement with outsourcer....

Managers: More independent in sales activity, too much dependent on outsourcer, sale force too weak, uncomfortable deal agreement with outsourcer, need to change to let company grow, hard negotiations, need good negotiation skills, now hurdle: 2 years no money if we denunciate agreement with outsourcer. Most difficult problem is the outsourcer. Because it has the direct connection to money: they can change product, they did not give us their ideas about the new product, and looked for a competitor to get the product, rather than telling us what to produce. In our company money is a never ending problem, the company exists since 15 years, consolidated in the last 10 years, the company has yet no financial management experience, money has always been a problem, every month the boss looks after money at the end of the month to pay people's salaries, and unpaid bills. Our colleague not working now, one of several, 20 people left the company in two years, resource problems, a 'revolving door' culture, students: a good place to learn, and then go!

4 CREATING VISIONS OF SOLUTION AMONG COUNSELLORS

Here are the consolidated *how questions* for visions of solution: *How to change from being sophisticated outsourcing contractors to a profitable brand of own products? How to establish our image and distinct identity in the market? How to transfer knowledge and design to the market by translating technical descriptions into marketing-oriented documents with which to present our products and services to customers? How to acquire a business management?*

On the basis of an analysis of these consolidated *how questions*, a series of good practices and strategic priorities are proposed by counsellors to meet the needs identified by the ethnographic observation: tentative *visions of solution*. These are priorities and proposals for action, which concern work practices and organisational aspects, with particular regard to group collaboration and cooperation phases, which have procedural aspects requiring improvement.

The *how questions* identified are first clustered by theme, and structured into various sub-systems: business mission, management strategies, process innovation, communities of practice, knowledge sharing, coordination and communication, IT support; in an endeavour to demonstrate how an integrated approach can enable different levels to communicate reciprocally in a network-based process in which each supports and gives sense to the other. The analysis draws on the *how questions* and on theoretical references on cooperative teamwork, as well as on other social theories, by calling upon some of their *principles* felt relevant. Here is where the counsellors' ability is called upon. There is no pre-established order,

between calling upon theories and invoking their principles, and producing visions. The tacit ability of sense making of the counsellor can first call upon theories and principles, or first evoke visions: there is no need to logically recall the first ones, in order to produce the second: *after the behaviour I understand how I behaved*, as Ciborra would maintain with Heidegger.

4.1 Introduction to the creation of visions of solution in the case.

Take for example – directly from our work notes - the issue of long e-mails, its translation in the how question: how can we develop a mixed initiative dialogue with users? And propose a vision of solution: Not having a modality of work of reaction in respect to the requests of the Western European client, but overturn the situation, acting in a proactive manner in respect to problems, predicting them and building a plan of action, which provides for step, situations, instruments etc. which facilitates the creation of a true workgroup, composed of designers and users: this workgroup is well composed and rich in competences, which could give life, if well managed and organised, to group work that knows how to integrate their various competences, the different interests involved with the aim of working together to resolve problems.

Strategy examples: Organise discussion sessions (together/at a distance → in synchrony and with discussion forums) to monitor the use of the instrument by users with the purpose of bringing out problems in its use. Organise group work sessions, also at a distance (with suitable computer support) in which, having reported a problem in the use of a machine, for example, the participants attempt jointly to find an suitable solution, each bringing their own requirements, needs and constraints and together building possible solutions. The solutions could then be tested by the users, perhaps supported by the designers, through the use of an appropriate grids prepared by the designers and supplied to the users, enabling the latter to use the instrument more knowledgeably and proactively, and then send the designers informal notes on the results via email. The logic behind this is that of small steps, according to which a problem, even a small one, which is jointly solved has broad resonance, not only from a concrete practical point of view (see the tree diagram of the seven total quality instruments) but from that of the group’s history in terms of trust, listening capacity, awareness where each can be a resource for the others. This would require the French and the Poles to use the same platform. The product made here and used there is on different platforms, this causes problems.

The advantages expected from this revolution: A true workgroup, with clear roles and objectives, must be created. The main objectives for the Poles: do not work with anxiety, under pressure, and with times dictated by the French, do so proactively as protagonists also in sharing methods. Further objective: achieve a result; technically improve, for the method chosen, which is again participative/cooperative, while respecting the different roles and competences. Here the relationship between French and Poles is asymmetric. The proposal is to increase and modify the Poles’ activity, giving them support methodologies so that they can be proactive.

4.2 The construction of draft SPD paths

Development work results in draft SPD paths, in the form of cards, that indicate in succession:

how question	theory domain	principle	vision of solution	structure of intervention
How better support our clients for problem solving with our products	Pragmatics of communication	use mixed initiative dialogs	Proactive offer of technology supported learning and counselling, both at the beginning of relation and during further collaboration, to complement reactive long e-mail	Step1 Step2 Step3

Draft SPD paths are used in coming back to the company for co-constructing consolidated *visions of solution*, and then agreed upon *projects of intervention*. Here below we illustrate in detail two such SPD paths, corresponding to *how questions* concerned in the case:

- *How to go about changing from being sophisticated contractors to a profitable brand*
- *How to acquire a business management culture and build a community of practice on it*

HQ - Business Mission: Changing from being sophisticated contractors to a profitable brand.	
theory domain	principles
Person-centred approach applied to organizations	People should be viewed as problem-solving agents in that they possess an “actualizing tendency” inherent to the individual and organizations. This means that organizations should seek the best within themselves, and they can find it if there are facilitating conditions and if there are drivers of change
The pragmatics of human communication Group dynamics	A flexible, open, two-way communicative style favours an efficient process of co-construction, both in the interaction between counsellors and actors, and among actors, even ones in different roles. Extended leadership favours involvement and the assumption of responsibility by the members of working groups.
vision of solution	
<p>Activate ideas on original own-brand products to market, and devote resources to the production of prototypes of these products to test on the market.</p> <p>This fact the company has understood and is seeking to do. The aim of the consultancy should be to legitimate and invigorate this activity, which should be designed and carried out by the company’s personnel, adequately accompanied and facilitated.</p> <p>The attempt is costly and there is a risk that they lack confidence to do it. Back-up and advice should be provided as opportunities and actions are defined.</p> <p>The consultancy should foster the protagonism and active involvement of the various actors, who can borrow the counsellor’s approach and use it in the group work (participative approach characterized by flexible and circular communication, extended leadership).</p> <p>The consultative process will also encourage self-analysis, enabling the customer to learn (meta-cognitive approach)</p>	
structure of the intervention project	
<p>First step</p> <p>Meeting with the CEO, to whom are presented the results of the ethnographic analysis, reporting on strengths, quality aspects, and also areas for improvement, among them emancipation from French/American customers. It is important to use the mirroring technique, accompanying the CEO through a process of awareness-raising with regard to changes to be made in the company; changes that s/he has already considered and/or tries, so that the process consolidates what s/he already knows.</p> <p>The CEO must be made aware that the time has come for change and that s/he has all the requisite resources. Flexible and two-way communication should be used to elicit ideas for the construction of viable procedures, and alternatives to consider.</p> <p>The success of this first step will mainly depend on the counsellor’s ability, in the ongoing interaction, to tap into the organizational culture, so that s/he can show how the change proposed is a logical stage in the process completed thus far, and that the company already possesses the human resources suited to undertaking the change (work groups of technicians that the ethnographic observation has shown to be efficacious, skilled, motivated, with a sense of belonging, etc.)</p> <p>During the interaction with the CEO, the counsellor should elicit one or two examples of what s/he considers to be feasible. These should be small-scale proposals with a good likelihood of success, rather than large-scale and complex ones more likely to fail.</p> <p>It should then be discussed with the CEO how these ideas can be extended to the managers.</p> <p>Second step</p> <p>Meeting with the managers to discuss the project devised jointly by the CEO and the counsellors.</p> <p>In this case, too, communication must be two-way, flexible and open; with encompassing management by the leadership to encourage participation, involvement, and the assumption of responsibility by the managers in this phase of the change process.</p> <p>Third step:</p> <p>If the managers agree on how transition is to be achieved from the old to the new business model, project groups can of both managers and designers/technicians can be set up. These groups should engage in more specific design.</p>	

HQ - Business Management culture: Acquire a business management culture & build a community of practice.	
theory domain	principles
Person-centred approach applied to organizations	People should be viewed as problem-solving agents in that they possess an “actualizing tendency” inherent to the individual and organizations. This means that organizations should seek the best within themselves, and they can find it if there are facilitating conditions and if there are drivers of change
All learning is change (Rogers 1969)	By producing change, learning generates anxiety, so that it is necessary to create a facilitating climate.
Innovation as a cognitive enterprise (Ciborra and Lanzara 1999)	In order to facilitate change, individuals and groups must be actively involved in the transition. To facilitate innovation, people must be made to see that change is an advantage for the individual, group and the organization
Communities of practice (Lave & Wenger 1991)	The ideal condition for learning a given culture is membership of the relative community of practice
vision of solution	
<p>It is necessary to work on the quality of the change process, involving individuals and groups in its co-construction, activating situations of accompaniment and consultation at the various hierarchical levels (first the CEO, then the managers)</p> <p>Organize the managers as a community of practice in order to create occasions for learning, comparing and sharing on the themes of Business Management Culture.</p> <p>Community of practice as the place in which the individual manager can share problems and strategies with his/her peers and obtained contextualized advice and support from colleagues.</p>	
structure of the intervention project	
<p>First step: Meeting with the CEO. Presentation of the results of the ethnographic analysis, reporting on strengths, quality aspects, and also areas for improvement, among them consolidation of a Business Management Culture. The CEO must be made to realize that the time has come for change, but although the organization has all the requisite resources, it needs specific consultancy and training courses in this area.</p> <p>Second step: Defining, and describing to the CEO and the counsellor, the Business Management Culture with regard to the company. A working session is held to initiate the consolidation of a Business Management Culture, given the characteristics, organizational culture, the implicit etc., of the company at this time in its history. In this case, too, achievement of the objective, i.e. realization by the CEO that innovation is necessary is closely connected with how communication and interaction with the CEO comes about → After a brief introduction, the counsellor will seek to elicit in the CEO a vision which may open the way for a Business Management Culture.</p> <p>Third step The next step is to design a project, again together with the CEO. The latter will be asked, for example, to consider the personnel of his/her company and decide which of them could, because of their specific competence, mentality, motivation, spirit of enterprise, deal with this new area as a priority. It is proposed to create a small group (two or three people) headed by the CEO who will work on designing a Business Management Culture initiative.</p> <p>Fourth step One possibility that may emerge is the creation of a group, a community of practice, which addresses these issues and devises some simple measures for improvement, the purpose being to try out certain procedures which may have already been adopted but haphazardly. Once again, it is very important not to emphasise the shortcomings of the group, but instead to stress what is already in place, successful procedures, what is already being done, also stressing that with a small targeted effort, i.e. choosing the aspect of the group and the company that can be improved by proactively undertaking effective and functional strategies.</p>	

5 CO-CONSTRUCTING TOGETHER WITH USERS THE *VISIONS OF SOLUTION*

5.1 Back to the company, to co-construct consolidated visions of solutions

With these draft SPD paths in mind, we had conversations with the CEO and the company middle managers in order to pursue co-constructing *visions of solution* together with users: motivating them consolidate and prioritize *how questions*, evaluating and promoting their awareness on the issues, gathering their own first hints of *visions of solution*: germs of what is to come, of what they see as directions for steps forward, before and without exposing them – not to influence their contribution – to the *visions* elaborated by counsellors. In the counsellors' *visions*, it had emerged that in the company there is a need for the input of new cultures from outside. Many of those *visions* have to do with how to motivate and best configure internal human resources, in order to help them facing cultural transformations requiring new competences. With this scenario in mind, conversations biased towards *visions of solution* were carried out with the CEO and with two groups of managers, one in technical area and one in marketing area. It is here the counsellor's responsibility to have them concentrate on the *pars construens*. As reported below, these conversations were successful: CEO and personnel are aware of issues, are available to face change, and also have ideas on how to go on.

The CEO was open and grateful for our own involvement, and had words of appreciation for our contribution, and of commitment towards further cooperation on our SPD paths. He also promised further elaboration on the *how questions* we put forth, that we anticipated as problem issues emerged, and on which we agreed. Both the CEO and the middle managers of the company addressed the possibilities they see to reconfigure the organisation, and to give answers to the various *how questions*.

The conversations with personnel has let emerge two alternate moods: while they were available for working together on problem issues, and explicit in denouncing shortcomings hurting them, also eliciting very interesting suggestions of way forward, they regained a pessimistic mood on how to proceed to solve those problems. Also, they were less open and outspoken on this latter point: difficulty in passing from playing with hypothesis, to reality?

Here below we list relevant contributions received, separated into the usual *how question* themes already used above.

5.2 CEO

We motivated the CEO to engage in a conversation with us about our relation, and about emerging *how questions* and *visions of solution*. Here is the outcome, stenography captured in his own words, containing his own *visions o solution*:

Our relation. Your approach was new to us. I was very sceptical that you were able to identify our problems by looking. Your report contained a lot of misjudgements, but surprise to me some existing problems, and others that we were not aware of. Consultancy free of charge, inspiration great for me. We are under current continuous changes. Finding ways to better manage these changes is good. Free of charge consultancy, valuable, source, I shall take these questions seriously (how questions), back to you and try to answer them in the context of our needs, interesting exercise.

Own products and brand. Our company has many restrictions, not legal, myself have no industrial experience, and this experience has been internal as entrepreneurs, employees very young, and no experience outside. Ours has been an academic way to build a business. Read a lot, learn accounting, etc. Still am more academic, than businessman, possibly entrepreneur. Structure here is that many have been my former students; I treat them as still my students. We started in 1987, doing business outside Poland, from Poland, Poland had no reputation, so we teamed up with a non polish American company, we become hidden behind their brand that we had to. Lack of real technical application, we have design methodology and automation, but not involved in real application: media, automotive, telecom, etc. Same for my students, this limited out activity, results in a portfolio belonging to

commodity. Limitations in the market. Can do sophisticated things, cannot have anything to differentiate from competition, plus this restricting agreement with outsourcer. To overcome this situation, my policy is to find partners in the university to get techs to differentiate us in the market, more value to the end-users. We can develop but not distribute in the current distribution channel. Extend portfolio of products, more value with end users, achieve with alliance with university. Planning for distribution in different channel, become competitor with outsourcer on this product, but still be able to distribute our commodity products, but more value, not worldwide, maybe US. Build own brand, value products, state funding, should be profitable. In the longer term, this strategy says that by extending our product portfolio, experience in wider scope system objective design flow, develop ability to develop on chips 85% reuse from our component, incremental effort be a differentiation specific factor, chips, parts necessary to develop, to differentiate, application specific standard product. IPR gathered in the company over the years. Can use polish market in CAD, identify partners in Poland, systems on chips will be used in many non-electronic products in the future. Good differentiation in Poland about these chips, exclusive in Poland.

How to acquire a business management culture. Of course I am sending my engineers to different kind of training related to management, maybe not enough: marketing, business management, post graduate studies, these things I read here are elements in building business management culture, it seems to me that at a certain point I should also study, a short MBA, but this is not enough, I am thinking of getting 3 vice presidents from industry, semiconductor industry, not available in Poland, our company has to create opportunities for them, better if we find polish working abroad, or expand our IP brand, distribution activities in silicon valley, or in western Europe. Sales, strategy and marketing, director of operations (everyday business), I have names in mind for these positions, a dream, may be they are attracted? Arriving to a certain size it is a must. The outsourcer has separated us from the market. We are not that badly organized. European average, they learned a bit, before Christmas asked them to write systematically reports, what they want to sell, analyse them find inspiration for their improvement. Building up of technical experience pretty rude. Without external sources we cannot grow beyond a certain level.

5.3 Technical group

And here is the outcome of the conversation with the group of technical managers:

Business management culture and skills. Would need intranet to help track schedules, and update them. We need to analyse actual problems in product life, need real example of problems to have ideas how to improve internal communication. Our schedules are prepared assuming some support for customer, but we do not monitor progress enough, and we do not identify in time that some schedules will be delayed, for missing support to customers, need more tracking of progress, and checking and updating if something goes wrong. This happens also in working groups, the reason is project manager do not like to track schedules, because there are a lot of changes in schedule of product life, after some time schedule is modified, very difficult to track schedule. We should use more intranet for horizontal communication. For vertical communication should use more meetings (CEO and managers). Communication between project leaders is already good, however, done in the kitchen; we know very well the product line. The goals of the company for next quarter, half year, next year should be shown on the table. Need a more fixed structure.

Shaking loose from captive resource. Must free ourselves from strangling contract with outsourcer. We are tied to outsourcer by a contract, we are very limited in making our own sales, is not possible for us to develop new things and go to the market. Need more salary incentives, and more motivation to stay. Motivation inadequate, employees go after internship, they fly away to other companies.

More contact with customers: We must increase direct interaction with customers. I do not remember of the last time I had experience of a direct interaction with customer, it is unbelievable how much we can learn from customers, now it is difficult to know what priority to take in our activity, we listen to the outsourcing company, but it has not enough technical knowledge, sometimes details of technical nature are essential for engineers, we lost a lot of information from customers because of outsourcer,

it has a narrow communication channel with us, we lose customers, and we do not know why, it is essential that we are aware why we loose a customer.

5.4 Marketing group

And here is the outcome of the conversation with the group of marketing managers:

More management culture. *It should be stated in the procedures that I have to go to engineers and have his time to talk about marketing: I prefer procedures....*

More business marketing culture. *Product development procedure exist, and marketing procedures also, they are even rather well developed, we need define paths for bridging them, for their interaction*

Establish the company in the market with better technical descriptions for marketing. *We had problems with this for a long time. Our staff for promotion in the market has no technical background, engineers avoid writing marketing as cats avoid water, we are not strong enough in implementing product line managers, but we started this process, next we shall expose product line managers to customers. One went to Taiwan, faced a customer for 10 days asking questions of sophistication. He came direct back excited, with customer needs, better prepared to deliver material for marketing, something that is important for customers. This is the right way. These are basic questions; more of these questions would help us. Our products are no different from other products from the market. But we could configure the products for customers, we don't leave our customers without help, competitors have products from the shelf, they leave the customer alone. This is something that distinguishes us, we have people that follow clients post sales, this is good in our business, we are not too expensive, but not the cheapest ones, not the highest quality, but have these particular strength. Communicate this in a better way. Express this directly: we customize....On the customer communication level, not only technical.*

Moving to own products and own brand. *Strong point: Flat structure of our company, client can have direct contact to engineer to discuss features of product, this is important, this we know. But our website is written for marketing, not good for this. Weak point: Do not know competitors products features, most competitors have specialised lines of products, we have everything, good and bad: wide product list, but poor products, incomplete products, only core products with no added values, they may fail customer needs. Must change this.*

More money. *Devise a path viable to lower weight of outsourcer, change agreement, and make space, no more exclusive rights to represent us on far east and other markets, lower to 10 or 20% their share of revenue, they have only 7 people employed, now they get 40%!!! Move to direct sales.*

6 DISCUSSION

The SPD soul: a holistic approach, a path of segments with non-strictly-fixed order. To communicate the spirit of the SPD approach, in this paper on *visions of solution*, we could not be episodic. We have therefore reverted to illustrating entire experimented SPD sequences, which provide sense-making background for the SPD concept itself.

Here below we discuss further our approach: after a concise, non-exhaustive list of issues encountered, and mostly still open at the time of writing, identifiable from our three research approach pillars: participatory design, action research, and counselling approaches, we comment on possible outcomes of view points emerged in case conversations; then we underline the crucial role, both of counsellor attention points for *visions*, and of *apparitions* for *how questions*; finally we comment on goals and goal shifts in SPD interventions.

Major research problem ISSUES encountered in the case (extracted from our working notes):

Issue priority (solved)

- Forming an ordered list in decreasing priorities: business mission, business management culture, mixed initiative dialog with clients

Internal view point conflicts (more time needed)

- On problem solving strategies, between CEO and technical personnel
- On evaluation of way forth and chance of success, between technical and marketing personnel

How we counsellors should help them (ongoing):

- In creating sufficient commitment to counselling by company – i.e., in a European project setting, not an established consulting contract setting
- In making available sufficient time/resources for implementing a proper counselling intervention
- In gaining trust to counsellors/consultants from CEO and personnel
- In addressing internal power conflicts in the correct company management arena

6.1 Comments on ISSUES, and on possible outcomes of things emerged in case conversations

All counsellors know that it is easier to see emerge aspects of criticism rather than of plause. We work on improvement suggestions, and concentrate on the strong aspects in the company. Precisely because personnel allow themselves to say what they say, we dare think that they still have faith in their organisation, and in their upper management; and also in ourselves. We shall rely on this faith.

CEO and technical and marketing personnel appear/communicate to have different options for the way forward: involvement of new, external managers, vs. in-house task re-assignment. The CEO has clear ideas on what is needed: a great creative and highly skilled technical effort for developing new products and opening directly controlled distribution channels, while freeing the company from the present outsourcing captive-resource contract; besides, acquiring three new vice-presidents to the company, to preside three strategic areas - sales, strategy and marketing, operations – with adequate competences in the new venture; both things requiring fresh capital investments in the company, however. The group of software development managers are clearly in favour of change towards own products and brand, and see a way to undertake change: they can dedicate themselves to create connections to customers and the market, conceive and develop in time new products, and to create and establish their own brand; while their deputies bring along service provision business as usual. The group of marketing managers appears to be less optimistic about change possibilities: they know they themselves have insufficient technical knowledge to promote and organise new products, to create new product lines; they believe that technical managers have those skills, but see that those people are busy managing the current business.

Our vision as counsellors is that both CEO and personnel have ideas, commitment, and should all be empowered to cooperate and start changing their organisation. We can facilitate communication between all actors involved. So, we need to work much more with them. As *visions of solution* available up to now are exemplified at a first level of elaboration only, these *visions* will be articulated in a more precise way in the sequel. The draft SPD paths created (two of them illustrated in Chapter 4 above) include in fact tentative intervention projects, to be discussed in future user workshops, in the continuation of our counselling effort. This very paper is a piece of the puzzle of the history of counsellors-clients relations: by force it is part of the process.

We are all thrown in the world. We, as counsellors *and* researchers, are thrown in the world. This paper is thrown in the world with us. In this paper, we write honest accounts. These accounts will be read by company personnel. Therefore, this paper is part of the case. We have mentioned different moods of personnel about the future, some more pessimistic than others. We counsellors are in a position to support the *pars construens* in the case, sending positive messages, helping personnel identify possible solutions, even small improvements, working in as analytic a way in the *pars construens* as in the *pars destruens*. In the case, the *pars construens* is presently ongoing, we need say, it must emerge in the paper that there are opportunities to construct solutions together.

In the *pars construens*, in order to activate the internal actors of the enterprise, counsellors need make emerge, at the side of strong points, all outstanding weak points, as unaddressed needs of individuals and/or groups of the organization – as this serves as initial awareness of outstanding problem issues -. This counsellors need do but knowing how to govern and protect this process, maintaining it within manageable limits. In this being thrown in the world, counsellors are aware of their crucial and delicate

role, and of the accompanying responsibility: aware of their responsibility of up to where they can push people in *eliciting weak points*. The passages we just wrote we consider crucial in our approach to activate and promote a change *with* others, not *on* others. Change paths in which, facilitated by counsellors, clients undertake the role of protagonists, of first actors. In the so-called 'performance', counsellors preside the role of overall direction, have in their hands then no-episodic supervision of the entire change process, and clients feel taken care of, protected.

This is the nature of SPD, having phenomenology as philosophical stand: at the side of the phenomenology based approach to learn about the world, that by very axiom accepts and uses events, happenings, emotions, and moods, there need be an absolute awareness and an absolute control in the equip of counsellors, on whom to involve, on what to involve, and when to involve, in all interventions. We have learned early as good counsellors and trainers that we can afford activate only social processes we are able to 'control'. Coming back to personnel – and we still have to come back to them – we as counsellors need be for them a support of their belief that they will make it, that they will be successful, each one in her or his role, to introduce improvements in major problems emerged. Second, we need activate and support a trust consolidation process between CEO and other managers, technical and marketing. This does not mean that they will all eventually agree on all things, but that we shall help negotiate between points of view that appear so far away from one another. Perhaps by working vertically on specific problems together with them.

In sum, what seems to be important is increasing the circulation of information between the various actors in the organisation, in particular between vertically displaced roles (middle managers appear to work well among themselves, while they indicate that they perceive the communication with CEO to be unidirectional). Facilitating a greater internal circulation of information is important, to help them increase trust of personnel in CEO, and of CEO in internal resources. The company is in a difficult moment, it appears, they are in a difficult moment, possibly they fear of not being able to overcome the difficulties, everyone tends to blame the other, someone looks for external *deus ex machina*.

Yet, from the emergence of differing feelings in different groups about type and success probability of options for solution, we see that perhaps there is room for a solution, there is space towards successfully enhancing the action of building their trust on the positive outcome, that they will make it. Constructive comments should then regard what counsellors will do next: reflections on the clients emerging early *visions of solution*, on what can be done: see the germs of those *visions*, elicit them one by one, construct a list of them to be used in constructing intervention projects, the next step.

As it can be deduced from the above, our intent is not that to observe a situation in the world only to analyse it, but to promote change. As in all action research, we need try to change the world in order to learn about the world. And, we want to learn about the world, in order to be able to promote change.

6.2 ATTENTIONS: Recursive approach, attention points shedding light on the path to visions

Principles and *visions*, then back to the company to co-construct with users consolidated *visions of solution*. *Visions* first emerge through the liaison between two sources: i) what has been seen/heard/perceived in the organization (in observation, in feedback from clients, in the first part of the construction path of change/learning), and ii) what is at hand from reference social theories (group dynamics, and all other ones to be used in our SPD paths). In coming back to the organization, what has been thought of in terms of *visions* has to be checked with clients. Even further, it is fundamental, in order to respect the nature of the approach, that we not solely address the segment of construction of solutions that uses the help of theories, but that we mainly address the coming back to the company and the dialogue with clients, to co-construct solutions with them; having already present at hand, as experienced counsellors, an elaboration of appropriate candidate solutions; but also being capable of 'forgetting them', to live fully and openly the encounter with clients and co-construct candidate solutions with them: this is the 'pivot' of SPD, we believe. ("*We have no time to develop mixed initiative dialogues!*") and we forget about the *vision* of technology-based learning). In fact, this is recursive nature characterizing the entire SPD approach: it is a continuous coming and going between client and counsellor in a *dialogic process* in which the counsellor is capable of observing, performing ethnography, elaborating on the observations, constructing visions, but paradoxically also of forgetting

them when coming back to the client (“being without memory and desire”, says Bion (1961), the group theoretician), to reconstruct afresh visions with them, putting to practice in that instant her/his competences, especially in the communicative/relational domain (ability of managing a flexible and open communication: (Schein 1999, Rogers 1980), as well as on group dynamics. With an additional *proviso* that underlines both the process of *continuous interaction with the client*, and the ability of the counsellor to *work substantially on self*, in order to acquire the necessary ability and ‘purity’ of approach that really renders her/him capable of helping the client find themselves the solutions to their own problems (Rogers 1951). *Trust building* with personnel is a necessary ingredient: personnel become involved only with counsellors they esteem and trust (both personally and professionally) and from which they perceive they can profit (personally or for their company). Counsellors must furthermore devote attention to their own process of training on the job: to be congruent, empathic, to be able to observe and ‘see’ they must be *aware of self*, of their own mood, in order to really see the most, not only what she/he expect to see, but also the unusual, the disaccording element, to pay attention to *hic and nunc*, here and now, in order to be able to learn from experience (Shon: reflection on action, in action, etc. (Schon 1991). The *diary of board* is a useful tool for the counsellor in pursuing the attentions above, to record events, situations observed (relational dynamics, communicative interactions, activities, behaviours, etc.), but also perceptions, thoughts, re-elaborations, thus promoting double loop learning, from experience.

6.3 APPARITIONS: Ciborra, unveiling the world, and the emergence of how questions

The *thing* is there, but people cannot yet put things together. Even if it then comes out that they could in fact have invented the *thing*. They cannot formulate the *how question*, define the central issue. They talk about something else, and now and then they come up with these aspects, that the expert ethnographer recognizes as gold nuggets. When the counsellor shows the nugget, the nugget gets recognized. Ciborra says that researchers should look for the *apparition*, pay attention to the uncommon, to the unusual, and get the differences in the non-uniform, with eyes capable of seeing. Concentrate on the non-obvious, on the strident with respect to expectations, on surprises. On what breaks the scientific paradigm. The new centre of gravity is human existence in everyday life (*our manager spends a lot of time at the end of every month looking for money for our salaries ...*). Ciborra goes back to the original Heideggerian concept of situation, of the German word for situation, that is the relational situation (how are you, how are the individual actors, in the relational situation, there and then). It refuses the systematizing, cognitivist approach. Perfect for problem-based approaches.

6.4 GOALS: “Not a technical issue!” Shifting project goals from technology use to innovate the organisation, to organisational innovation to use technology

Last but not least, the investigation of the case at hand let emerge that problem issues most felt by personnel are not related to technology, but are of different origin, and possibly of greater relevance to them: business, management, organisation, teamwork. This fact makes rise to our attention one relevant issue: the relation to be observed between emergent social issues and technology use in the organisation. It is evident that this relation is asymmetric, in general, and that the scope of social issues is wider. As a result, we should expect that, while employing social perspective approaches in attempts to support technology use in organizations, we may encounter problem issues of social relevance that are *not* primarily related to technology use. What then? An interesting practical, political, and moral issue arises, of what to do then: disregard eventual social issues that are not specifically connected to technology use, in order to concentrate efforts rather on those that are? And what if the non-tech-use-related social issues happen to be of vital importance for the organisation concerned? (“*We have no money!*”) These are not borderline questions, in a scientific research paper, but questions that overlap with relevant areas of deontology of counsellors. This is in fact a fundamental issue in SPD: where the counsellor should stop, aware that social issues require taking care of issues in a delicate manner: the counsellor should not activate/stimulate situations that she/he is not in a position to accompany, support; it entails her or his ability to predict the future. Here we only wish to point out again as relevant, the aspect of ‘mood’ in Ciborra-Heidegger: the phenomenological approach requiring the full awareness of the central actors of the scene, here counsellors called to actively participate in the event.

7 CONCLUSION

Recurrent elements/topics in the *principles* section of this paper, giving rise to *vision of solutions* to *how question* issues, point principally to the involvement and agency of company personnel (individually, and in group setting): the conviction that individuals and groups possess ‘an agency tendency’, which brings them, when in facilitating conditions and if adequately accompanied and supported, to find in themselves ability and motivation for improvement, and even for the solutions to their own problems. This substantiates the *counselling* component in our SPD approach.

The prominent feature exhibited by our counselling approach to the generation of *visions of solution* in SPD, related to our been thrown in the world, participating in with all our moods because we take full responsibility to be aware of our moods and of our thoughts, to reflect in action and on action, to think on our thoughts, is a contrast between freedom and rigour: maximum *freedom* allowed in creating *visions* – unveiling, improvisation - and relevant associations between problem issues and principles invoked from social theories, maximum *rigour* required in following the approach – responsibility in intervention, ‘purity’ in co-construction -: a significant encounter of phenomenology and ethics?

The socio-organisational and business nature, of strongly felt *how questions* and *visions of solution*, have emerged clearly, and were consolidated in interactions with CEO, middle managers and personnel. The case study illustrates in practice the fundamental scope, and the crucial perspectives, of the often unaddressed need for *social practice design* to cure unresolved social/organisational/business issues in deploying new technologies: the straight introduction of automation, without business re-organisation and development/emergence of new social practices, allows only to do more efficiently the wrong things, as well known. Addressing *how questions* with appropriate *visions of solution* then allows organisations to learn and undertake change, towards the adoption of new *social practices*.

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