



'The Knowledge Era': The Story of a Research Project¹

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abstract

This paper is an experiment. The experiment consists in writing a text which does not follow the 'classic' mode of reasoning of academic rhetoric but weaves different styles and personalities together in rapid and rhythmic manner. The paper is based on a three-month ethnography in an consultancy company and narrates the story of the development of a research project originally entrusted to three young researchers. From the beginning, it is clear that actors have different aims, that different aims require different ways of acting and that because of this reflexive relationship events are only partially under the control of the subjects involved in the action. The circular and reflexive relationship that arises between practices and discourses in every space of action (including scientific research and fieldwork) induced me to try to construct a story in which the account followed the course of action as closely as possible, interpreting personages (researcher and participating subjects) and events (since these involve the actors or the researcher) as dynamic and reconstructible social facts which constitute subject of investigation. Rather than construct a text that showed analytically the heterogeneity of the elements that contribute to the outcome of research, I preferred to translate this heterogeneity directly during the writing stage, making the various possible courses of action explicit and letting the progress of the story 'mobilize' and 'perform' the most significant events.

It was a wrong number that started it, the telephone ringing three times in the dead of night, and the voice on the other end asking for someone he was not. Much later, when he was able to think about the things that happened to him, he would conclude that nothing was real except chance. But that was much later. In the beginning, there was simply the event and its consequences. Whether it might have turned out differently, or whether it was all predetermined with the first word that came from the stranger's mouth, is not the question. The question is the story itself, and whether or not it means something is not for the story to tell. (Paul Auster, *The New York Trilogy*, 1987: 1)

The story begins when the ethnographer receives a brochure. Printed on the brochure is the logo of a private university recently set up with funding from a group of famous and hugely wealthy multinationals. It bears the title 'New Tools for the Analysis of

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Professional Communities as Distributed Intelligence Systems'. The aim of the project is:

to experiment with and test new research tools capable of supporting the study of professional communities in economic organizations...From a technological point of view, the results of the project will enable development of a model of an on-line community based on significant methodological and theoretical assumptions.

The outcomes foreseen are the following:

- Materials for the international dissemination of the project's results;
- A tested methodology for using the tools identified;
- A tested theoretical model with which to describe and support professional communities;
- A Web application able to reproduce the underlying organizational model in a virtual environment.

The brochure bores the ethnographer, and he fails to understand why it has ended up on his desk, seeing that he does not own a company, knows nothing about professional communities, and uses the Web mostly to send e-mails. Yet he continues to glance through the brochure and comes to the 'Methodological Tools' section. These tools are:

- Social network analysis;
- Extraction of individual and group mental models by means of text analysis;
- Ethnographic analysis of informal groups.

The ethnographer is somewhat irritated by the brochure's description of the research methodology, and especially by the expression 'methodological tools' with its implicit assumption that methodology is a tool. But at least he begins to realize what has happened. The ethnographer's name is Zoe, he is a graduate in sociology of organizations and has spent the last six months working as a researcher on a university project. He collaborates on a more or less stable basis with a lecturer who has obviously suggested his name as a researcher/ethnographer for the project. He grows curious and decides that he will meet the merchants of knowledge and find out what the project is about.

The meeting is to take place on an island in the Venice lagoon. *Laguna University* (for that is its name) has bought the entire island, taking advantage of the fact that some years ago the Venice city council decided to sell off some of the islands in the lagoon. When Zoe arrives in Venice, a private launch is waiting to ferry him to the island. Some other members of the project are on the launch: two young researchers, two university lecturers, and various merchants of knowledge. Zoe falls into conversation with one of the latter, who tells him that the island where they are heading used to be the city's mental hospital. The most distant and isolated of the lagoon's islands, difficult to reach and equally difficult to leave, it offered ideal protection for Venice's citizens against the 'lunatics'. Zoe is intrigued by the story and begins to think that scholars, too, are a little 'mad' and should therefore be kept separate from the rest of the citizenry. Moreover, it is the ideal site for a private university: impregnable to students on terra firma without

boats, and an enchanting setting for scholars in search of a little Eden in which to pursue their studies.

Once on the island, the passengers are ushered into a splendidly appointed room and presentation of the project begins. Delta (an Expert-merchant,² not the most powerful of them but the project's general factotum) introduces the other merchants involved. He introduces them with a slide depicting the caricatured faces of merchants. For example, one of them with an abundant head of hair is given an exaggerated bouffant; another with a prominent nose is given a schnozzle *à la* Cyrano. Yet another has a red star on his chest, because, the merchant explains "he's the communist among us". Zoe asks himself whether being (vaguely) communist is as comical as being bald, or having a large nose (assuming that a large nose is comical), or whether it is to be interpreted as an ontological category ('bald', 'large-nosed', 'communist'). He also reflects on the changes taking place in multinational companies: what ten years ago would have been an impediment against a managerial career ('being a communist') is now a grotesquerie to poke fun at.

The meeting continues with presentation of the project's various areas of research.

The first is 'extraction of mental models'. In spite of what the name might suggest, this appears to be a clean and painless process. Slides produced by the subjects are inspected (for a merchant of knowledge slides are an excellent indicator of his/her thoughts); in-depth interviews are conducted with the subjects responsible (elsewhere they would be 'authors', but the world of the knowledge merchants is driven by 'competencies', so that there are no 'authors', only those 'responsible'); they are asked to 'tell the truth, the whole truth, and nothing but the truth' about how to do what they do and how to know what they know (torture is not recommended). There is a danger of self-evidence and tautology here, but never mind, for the (guaranteed) outcome of the process is the certain and systematic specification of the cognitive processes that regulate action in a given organizational setting. These processes can be transposed to other settings and other subjects. Or they can be modelled by software enabling the more efficient management of knowledge. The knowledge merchants are fascinated by this new method to colonize knowledge, and long discussion ensues on how to incorporate it into technologies and persons. Zoe instead asks himself what has happened to the people who first produced this knowledge, given that they have been dispossessed of their practices and thoughts.

The second talk is about 'intelligent agents' (the brochure mentioned 'social network analysis', in fact, but brochures do not always tell the truth). An 'intelligent agent' is a sort of computerized 'personal assistant' which facilitates communication and information-sharing among different operating systems and/or software programs and/or

2 The hierarchy of merchants is as follows:

- Junior-merchant
- Expert-merchant
- Manager-merchant
- Partner-merchant.

databases and/or persons communicating by computer. Take the case of someone who wants information about a car, for example. This person probably already has a number of characteristics in mind: he may be interested in a runabout and not a sports car; it may be that he rejects yellow out of hand because he loathes the colour; it may be that he is only interested in new cars and not in second-hand ones; or that the car must have five doors and not four; and so on. It is the task of an intelligent agent to know all these details and to broker information by connecting with other intelligent agents and asking them what information they have about cars. The ethnographer thinks that all this talk about intelligent agents rests on some pretty weighty assumptions, primarily that people have very clear ideas of what they are looking for, and that these ideas are not refined as their search proceeds. And what if they change their mind? And then, when we distinguish between 'runabouts' and 'sports cars', is the intelligent agent's idea of a 'runabout' and a 'sports car' identical with that of another agent? Of course, we can make further specifications to restrict the class of objects being referred to, but can we be sure that increasingly detailed information ensures non-ambiguous communication, rather than generating more and more misunderstandings?

Finally, it is the turn of 'the ethnographic method in the analysis of informal groups' to be presented. Zoe at last begins to understand what the merchants' interest in ethnography is all about. One of them (Delta) has stumbled across an esoteric volume on organizational research, where the author uses the metaphor of organizations as 'communities of practice' to assure the reader that there are magic formulae for the successful management of organizational knowledge. To be sure, neither Delta nor any other of the merchants has read any further than the title and subtitle of the book. But after rapidly leafing through it, they are convinced that one of these magic formulae is ethnographic research. None of them has any precise idea of what this is: a useful way to indoctrinate pygmies, perhaps, or to flog mirrors to Amazonian tribes. In any event, their plan of action is as follows: according to the results of a study based on social network analysis, their team of merchants is a community of practice. What they want Zoe to do is follow the first three months of the learning path of a 'newcomer', so that they can identify how knowledge is managed within their group and, in a broad sense, the entire organization. Zoe is rather sceptical. He knows very well that social network analysis works on the basis of an algorithm which measures the social distances among a given set of individuals. And he thinks that it serves at most to form the teams for some sort of tournament among the employees of a company. But he holds his tongue and accepts with an enthusiastic smile.

In any case, the main purpose of the meeting is for the members of the research group to get to know each other. Zoe's situation, why he is there, and his doubts, have already been described.

Then there is Soemia, whose task it will be to plot the mental maps. Soemia is an arts graduate. She has had some brief research experience (in linguistics) and like Zoe she is currently unemployed. She says that she knows nothing about mental models, how they are extracted, or how they are implanted. However, she seems very much at ease as she talks to the knowledge merchants, and she already knows where the coffee machines are located in the university.

The other young researcher is called Bassiano. He has not yet graduated and is studying economics. He has recently begun writing his degree thesis, which deals with constructing the architecture of intelligent agent software.

Finally, besides the knowledge merchants, there are two university lecturers in charge of the project. There should be three of them, because Zoe's research tutor is also involved, but she is in the throes of a 'linguistic turn' and has declared that she will only recognize the semiotic-rhetorical role of project director. She will sign everything that needs signing, she will appear in all the official documents, but nothing more. The other two directors of the project are instead very happy to be more than mere discursive-institutional constructs and therefore do everything to demonstrate their intentionality, their capacity for action, and their ability to plan future action. One of them lectures in economics but has drifted into psychology and sociology: he is responsible for extraction of the mental models, in fact. The other is a research fellow in economics (although he has a degree in philosophy) and researches the 'architecture of information systems'. "The most dangerous!" Zoe would say afterwards, reflecting on the cynicism necessary to translate the refinement of philosophical reasoning into an approximation of the connections in an intelligent agent system.

In any case, the meeting goes well: the various areas of the project, the funds available and the research timetable are all presented as the knowledge merchants wish. But the three young researchers are told something they had not anticipated: they are expected, indeed obliged, to be present on the island for one day a week. The reason adduced is that it is important to form a research group based on the sharing of knowledge so that the group's members can be constantly in contact and kept up to date on the project's progress. Because the island is difficult to reach, however, the researchers should arrive the previous evening, so that they are already on the premises in the morning. Their accommodation and travel expenses will be paid by the multinationals funding the project, which also finance the host university. Zoe asks himself why it is necessary for them to meet once a week, especially since the empirical phase of the project has not yet begun and any research material is still highly provisional. He knows little about bookkeeping and budget management, but his reaction is that this is a device to ensure that the money always circulates within the same group of organizations.

Before the three researchers leave the island, the knowledge merchants take them on a guided tour of the university. Magnificent lecture halls, luxurious libraries, state-of-the-art computer rooms, the beauty of Venice constantly (and distantly) visible. Zoe looks around, because he has learnt that details are noted the first time you see them – thereafter they merge into the background – and he realises that ... the university is deserted! They meet no lecturers, no students; the silence and cleanliness of the surroundings are due to the absence of anyone or anything that might produce noise or dirt. He discovers that the university is in its first year of operations, that courses will begin only during the next six months, and that their research group is truly 'unique' because there are no others. Thus, while the launch transports them back to *terra firma* he thinks of all the studies he has read which argue that the purpose of institutional action is often to gain social legitimacy, and that in the case of a university, probably one of the first ways to do so is to set up a research group.

Where the ethnographer begins to understand what it means to be a knowledge merchant

Omega is a new recruit at Aspera (for that is the name of the merchants' company). She has a degree in economics and business studies and has already completed a six-month work placement at Aspera (to prepare her degree thesis). One month after graduating, she officially began her first job with the company. Omega is also the 'newcomer' chosen by Aspera for Zoe to shadow. When they meet, they do not like each other. Zoe thinks that observing someone with such an ear-splitting voice for three months is going to be difficult, while Omega resents her shadow's appearance. There is nothing personal in these reactions, for they have only just met, but to pretend that appearance is unimportant would be hypocritical, for both an ethnographer and a merchant.

The first meeting with the client

The appointment is for 8:00 outside Omega's house, where Beta is already waiting. In the hierarchy of merchants, Beta is a 'Partner-merchant'. The ethnographer asks himself how it is possible for your 'boss' to turn into your 'partner'. Omega and Zoe get into Beta's mobile office: a splendid saloon with stereo, automatic gears and telephone, a smell of wet grass, and a cruising speed of 200 km/h. They arrive at their client's premises. At 'reception' Beta introduces himself as 'Aspera', nothing more nothing less; the ethnographer is introduced as the 'shadow', which seems not to create any particular problem. They meet the 'Buyer' (the company interface for the purchase of knowledge merchandise) and other persons (the 'quality supervisor' and the 'human resources manager'), all of whom, as far as the ethnographer can make out, were born on the Greek island of ISO in 9001. Zoe is bewildered and follows close behind Omega, but more in order not to get lost than out of any sincere research interest. Also the date, 9001, strikes him as strange, but he thinks that he'll have time to understand. And then in any case it is only a number; it's space that makes time and nothing more.

When they have left the company and are back in the car, Omega and Beta talk about the morning. She is astonished by the 'coldness' of the people in the company. Beta says that it is normal: when an outsider comes in there is always this suspicion. Apropos 'outsiders' (and perhaps also 'suspicion') Beta turns to the ethnographer and asks him what he wants to do when he 'grows up'. Zoe says that he still has plenty of time to decide (or otherwise). Beta asks Omega the same question, and she replies (jokingly) that she wants to set up a consultancy company with funds to promote female entrepreneurship. Zoe takes advantage of the relaxed tone of the conversation to ask what Beta wants to do when he 'grows up' (of course, Beta is already 'grown-up' and the ethnographer's question inevitably sounds sarcastic. Zoe doesn't care: he thinks that these are the people who he's got to spend the next three months with, best to get it out in the open immediately). Beta says that his aim is to "enjoy himself", that for him merchandising knowledge is fun, and that his ambition is to "get to 55 and then spend my time travelling, studying and screwing around".

Zoe asks him how long he has been working for Aspera, and he replies "always", adding that (for him) a knowledge merchant has a type of DNA different from that of a fence. It is part of a merchant's genetic code to take on the organization's problems, to

become accepted and constantly valued. It is an enormous satisfaction for him to see his work bear results and to be told things like "if it hadn't been for you it would never have been possible". He concludes by saying that he regards the role of merchant as a "game", and that he thinks he'll continue to enjoy playing it for another fifteen years.

Omega asks Beta what he thinks of her "performance" during the morning, but he pretends not to hear and instead reminds her to write up her log for the day. The three say goodbye and Zoe and Omega go back to the office. During the car journey, Omega thanks the ethnographer for asking Beta what he was going to do when he 'grew up'. She had wanted to ask him but didn't had the courage. Zoe thinks how paradoxical situations sometimes are: he wasn't interested in what Beta wanted to do; he was interested in seeing how he would reply in the presence of Omega.

The first interviews

One evening, a virtual messenger of the knowledge merchants appears on the ethnographer's computer screen summoning him at 8:00 the next morning. Omega and the ethnographer meet outside her apartment building. She gets into the car without even saying good morning, and as if thinking out loud, tells him that she is going to be in trouble because she didn't finish a job the previous day.

Omega puts on her make-up during the car journey.

On their arrival at their clients premises, it is Gamma (a Manager-merchant) who introduces the group; the presence of the ethnographer, besides being unexpected, seems unwelcome. Also Delta notices the hostility, and points it out to the ethnographer, almost reproachfully.

When the two interviewees have been introduced, the scene moves to another room. Gamma begins to describe the project and the first problems arise: the two manager interviewees do not know what Gamma is talking about, the Buyer hasn't explained clearly enough, or not at all. Gamma tries to explain the purpose of the project and then hands over to Omega. She begins a presentation but is soon interrupted. The two interviewees are not convinced by the 'competencies analysis' that the merchants want to develop. They think that it should be the merchants telling them about the competencies required to start up new business. Gamma answers that it is precisely this that they are going to analyse. They are waiting for an appointment with the Mega Director to shed light on future strategies. For the time being they must start with the actual situation, which they expect to understand from the interviews. The Commercial Director (one of the two interviewees) says that he still does not have a clear idea of the merchandise, and in any case it would take two weeks to explain everything that they do. Gamma takes offence and challenges him: "Right then, get started, I'm ready!"

The Commercial Director stands up and begins to describe the market strategies. He uses a whiteboard, although there is no need for one (the ethnographer thinks that use of a whiteboard must be the custom among people born on ISO in 9001). It is Gamma who manages the situation (that is, asks the questions) and the conversation continues between just the two of them; the Buyer listens, Delta takes notes, Omega looks bored. The Commercial Director develops a metaphor: "It's clear that for the client it's like the

war in Serbia ... you can bomb as much as you want, but until you move the army in, you can't control the market." Delta say, "That's a good comparison!" and the atmosphere improves. The Commercial Director sits down, he stops drawing tree diagrams and talks in relaxed manner. Gamma stops asking questions, Delta stops writing, Omega continues to take notes with the care typical of someone who has just finished university. Although Gamma continues to conduct the interview, Delta begins to ask questions as well. The ethnographer is a convinced pacifist and has collapsed after the joke about the war in Serbia.

The interview stops at 12:30 because the Commercial Director has another appointment.

When they have left the building, Omega, Delta and Gamma talk about the morning's work, which they think has gone quite well. Omega says that she felt unprepared, Delta says that he does not really understand why Gamma wanted to make the presentation on his own but refrains from outright criticism.

CARE?

Beta asks Delta what score he has given to one of their merchant colleagues, and Delta says that he's given him '5'. Beta disagrees: you give '3' if the person "has done his job", '4' if he's turned in a good performance, and '5' if his performance has gone "further", if it has been outstanding, if he has developed new ideas or new projects.

This is part of the only conversation held in the car during the journey to the third appointment with the client. The conversation is about CARE, Aspera's internal assessment system. Every year, Aspera holds a 'day of reckoning', Omega explains to the ethnographer in an undertone: "senior merchants assess your performance in terms of achievement and personal qualities. The result of the assessment is discussed with the person concerned and then with his or her Partner with regard to career advancement (and a pay rise). There is a score for each individual job and a final one".

Beta says that unfortunately everyone gets '5'. "Unfortunately" because that means there is no selection, whereas that is the exact purpose of the assessment system. "Luckily" every so often someone receives '2' or '1', which (according to Beta) does not automatically mean that you're thrown out of the company; it may be a stimulus (or an imperative, thinks Zoe) for you to try harder. Omega later tells the ethnographer that the CARE system is only a way to divvy up funds. Her degree thesis was on the monitoring of performance at Aspera, and she discovered that during CARE meetings the company's turnover is announced. Those present are told how much has been budgeted for pay increases and they then decide how much to give to whom according to their position in the company. This is followed by jockeying among the partner-merchants on which of their assistants should receive bonuses. So in the end everyone gets '4' or '5'.

However, the atmosphere in the car is not as relaxed as it was on the previous two occasions. Omega, Delta and Beta say very little, and above all none of them mentions today's meeting. Only the ethnographer feels at ease: he still does not know that today the merchants must meet the Mega Director.

When the going gets tough ...

On arriving at the company, the group discovers that the meeting has been delayed for an hour. Beta asks the Buyer if there is a room where they can work while they wait. When alone, the merchants discuss what they want to 'obtain' from the interview with the Mega Director.

Gamma reports on the state of the project, Beta and Delta take notes. Omega works with her computer, drawing a graph that she has forgotten. Omega has had problems with the presentation. Gamma telephoned her on Friday evening to tell her that there were changes to be made, and she worked the whole weekend, even though she had planned to relax. She sent the presentation to Delta, who made some minor changes and then gave it to Beta, who was not satisfied and sent it back to Omega. She, however, did not know what to do, and now she has even forgotten a slide... Gamma, Beta and Delta talk; Omega watches in silence, her computer switched on in front of her. Delta asks her to call Aspera for "service communications". Omega therefore has to leave the room in order not to disturb the conversation. When Omega returns, the three are leaving the room to begin the meeting with the Mega Director, and they are leaving without her. In this way they can also avoid the intrusive presence of the ethnographer, who as Omega's shadow remains in the room with her. The reason given for her exclusion ("there shouldn't be too many of us") strikes her as an excuse (and in fact the Mega Director has ordered: "no women, and no shadows!"), she thinks that she must be doing a dreadful job to deserve such treatment and already imagines an enormous '1' being dumped on her. Before leaving the room, moreover, Delta gives her some administrative matters to attend to (mostly telephone calls) and this puts her in an even worse mood: "You get a degree and everything... and then you go off and work as a secretary! Why do they have to stress me out like this?" The ethnographer cynically points out that stress management is probably one of the most crucial aspects of her job.

Perhaps because of this excessive dose of cynicism, something unforeseen now happens. Omega is hit by 'slide syndrome', an illness widespread in tropical tourist villages and also rather common among knowledge merchants. The 'slide syndrome' consists in the fact that you have spent long hours the previous night preparing a superb set of slides and then find there is neither a projector awaiting you nor an audience prepared to listen to you. Omega decides to use the ethnographer: she deploys the rhetorical device of "valuable research data" to force him to listen (with feigned interest) to her presentation. Not in all its details, but she shows him her slides, the more 'problematic' ones especially, and then goes to the whiteboard and draws a diagram of how she wants to present the situation. She repeats to herself the mantra: "presentations should be perfectly sequential ... otherwise they're useless ... perfectly sequential ... otherwise they're useless ... sequential ... sequential ... useless ...".

After half an hour or so, Gamma, Delta and Beta return. They have met the Mega Director but did not present the project. Beta is pleased because he can see an intricate situation with plenty of opportunities to do business. Delta is less confident, although Beta's buoyancy reassures him. Delta and Beta swap comments:

Delta: "The Mega Director wants to see how Aspera works, so he's going to invest peanuts in a teeny little project. It's like going to a restaurant and ordering a glass of mineral water to see how good the service is."

Beta: "We'll do a little project just like they want, and then we'll say that we've already thought about how to do it big-time."

The ethnographer (who deconstructs when bored) asks what doing a glass of mineral water 'big-time' would be like.

...the tough gets going

The meeting begins. The Mega Director sits at the head of the table with the various section heads to his left, and Delta, Omega, Gamma and Beta to his right. Omega's shadow sits at the end of the room, a long way from the table and close to a bone-chilling air conditioner. Is this, he asks himself, the 'researcher's privileged vantage point of observation' so widely cited in the literature? And isn't it odd, he muses, how all you need is an air conditioner to work out where you are. During this first month with the knowledge merchants (whose natural habitat requires air conditioning, certainly not the humdrum oxygen breathed by ordinary mortals), he has learnt that the air conditioned by Beta's machine (for example) does not have the same quality as the air conditioned by the machines in the Aspera offices, which differs from the air at Laguna University, which in turn differs from the air that they are breathing now. He begins to imagine writing an article on air conditioning as an organizational process. He has been told that the introduction of air conditioning at both Aspera and the university coincided with a ban on smoking. All the windows were hermetically sealed, because of the new air conditioning system, so that anyone who dared light up a cigarette was immediately detected. Which did not mean (as usual, and as Zoe has already realized) that people stopped smoking. Some Manager-merchants still smoke, and so too do some of the senior-secretaries. But once Zoe saw a Manager-merchant (with a glorious career in the army behind him) make a Junior-merchant do ten push-ups because he had smoked in the office.

Zoe stops day-dreaming when he hears his name spoken. It is Beta, who has begun to present the knowledge-merchandise, as well as introducing the group of merchants in strict hierarchical order, with the ethnographer added as an after-thought. His voice is loud and assertive; he times his pauses well, with no hemming and hawing. While still standing next to the screen on which the project slides are being projected, he hands over to Gamma, who continues itemizing the merchandise, and then concludes.

Nobody speaks.

Beta tries to add a more incisive finale to the presentation. The Mega Director raises an objection. Beta turns to Delta and Omega, asking if they want to reply ("Coward!" thinks the ethnographer). Omega answers, but somewhat too 'technically', so that Beta interrupts her to emphasise the freshness of the merchandise. The Mega Director makes a damaging criticism while leads to tough discussion and finally to the client's refusal to buy the knowledge-merchandise.

When the meeting has ended, the merchants go off to the Buyer's office where, crimson-faced, he apologises for what has happened. The merchants are equally crestfallen.

On the way back they discuss what to do. Gamma tries to find a "domain" in which to intervene. Delta worries that their reputation as merchants has been damaged. He proposes that instead of doing what they have been taught to do in the passive role of the merchant who always goes to the client, listens and then does everything he wants, they should force the Buyer to clearly say what kind of knowledge-merchandise his company is interested in. But, Beta replies, that would be to double-cross the Buyer, who is instead (according to Beta) belly up and ready to do anything to help. Delta and Gamma continue to discuss the problem, but without finding a solution.

The ethnographer is in a panic: too much talk, too many words, too many metaphors to follow and note down (sitting in the back of a car travelling at 200 km/h). And then too many new events, too many situations to interpret, too many incidents from the past. Zoe knows that he has witnessed a 'critical event', one that his colleagues would give anything to observe, and yet he does not know what to make of it. This is the first time he has attended a meeting of this sort, and consequently he does not know how it 'should have' proceeded. To be sure, the merchants presented merchandise that was rejected; you don't have to be an ethnographer to realize that things did not go according to plan. But that was only the outcome. What about the process? What is it that should convince the ethnographer that he has witnessed an event 'unique' in terms of processes? Perhaps the client always rejects merchandise the first time it is pitched to him, so that what is a critical event for the consultants is merely a routine one for the Mega Director.

The next day Gamma receives a telephone call from the Buyer. They agree on another project (this one is called 'Skills Census'). When Gamma finishes talking on the telephone, he gives the others the gist of the conversation: "In the end I sold him the project that I wanted".

Where the ethnographer begins to realize how tough the knowledge market is

In the meantime, the work of the rest of the research group at Laguna University has gone ahead. To tell the truth, when the three young researchers meet again on the island, they have little to say to each other. They have different vocabularies and attitudes, and above all they have diverse interpretative schemes with which to make sense of what they do. Bassiano's main aim is to write his degree thesis, so that although his research work is focused on intelligent agents, its overriding purpose is to enable him to put together a bibliography for his thesis. His attitude can be summarized as: "I'll study anything you want, as long as you let me study things that are useful for my thesis". Soemia instead has the problem of finding a job; more specifically, she views her research as a springboard towards a brilliant career with Aspera. It is not that she is uninterested in extracting mental models, but she wants to be sure that it will give her a permanent job with the knowledge managers. Her attitude is therefore: "I can extract the

mental model from a courgette, as long as you don't ask me to reflect on the why and wherefore". Zoe is intrigued and amused by the situation and exploits his role as shadow to stay on the threshold of events; he is often irritating, because he constantly asks questions. Moreover, it often seems that he is pretending not to understand, so that the others are forced to explain everything in the smallest detail. He does not do this deliberately, in the sense that he truly does not understand, but it is the way that he does it that is annoying. Because when Zoe does not understand something, he does not ask for explanations timidly or obsequiously; on the contrary, he uses his ignorance as an excuse to talk to as many people as possible, and to prompt collective discussion. An example was when he failed to understand a joke played on him by a secretary and reported it during the second meeting of the research group.

The second time

The second meeting of the research group has been eagerly awaited by everybody, especially the knowledge merchants, who are anxious to have something 'deliverable' to place on the market. The results of the mental models and intelligent agents sections are presented by the two project directors, not the by the young researchers. Nothing is added to what was said at the first meeting, the only noticeable difference being that the logos of Laguna University and Aspera now appear in the upper-right corner of the slides.

The preliminary results from the ethnographic area are instead presented by Zoe himself, because his academic supervisor is still recovering from her fit of pragmatics. Zoe is happy that he can present his work in first person, but he is also preoccupied. Less because his presentation does not involve the use of PowerPoint (a totemic software application which invariably forms the background to the merchants' ritual meetings) than because he has decided to report an episode that happened a couple of days previously in the Aspera offices, and which has greatly helped him to understand the organizational structure in which the knowledge merchants operate. Thus, when his turn comes, he asks those present to read a sheet of paper on which he has written the following:

THE ORGANIZATION IN THE WARDROBE?

I am in the northern Italy offices of a well-known company operating in the knowledge market. I am there to conduct ethnographic fieldwork. I am in one of the offices together with three other persons, whom I am observing. Sigma comes into the room. She has been described to me as the company's "historic and living memory". I was introduced to her when I arrived on the first day, and since then we have exchanged cordial 'good mornings' and 'good evenings' but we have never talked. Sigma needs to make some photocopies, and I am sitting in front of the photocopier. So I stand up and make room for her (the office is rather small and the five of us can only move around with difficulty). When she finishes photocopying, she stops in front of me and asks me to follow her. Because, she says, she wants to talk to me for a moment. We go into the office of one of the managers (who is not on the premises), she closes the door and begins:

"I'm sort of a mother figure round here, because I'm the oldest. You're just about the same age as my son." She wants to give me a piece of friendly advice ("Don't think that I want to ...") about my appearance ("You're a youngster .. who's a bit ..."): "The world of work is different from university!"

I entirely agree with her, but I fail to understand what it has got to do with my appearance.

"Last week you were in Milan" (at an Aspera branch office). Indeed I was, but I did not realize that she knew. In any case, I still fail to understand.

"It seems that you were wearing a T-shirt ... a bit creased ... well, everyone noticed it (reproachfully) ... I'm not telling you to wear a jacket and tie, but be a bit more ... fortunately today you're wearing proper shoes and not trainers ... I'm not telling you to change your ideas or your personality. The habit doesn't make the monk and the desk doesn't make the man, but ... really (I'm telling you because you're the same age as my son), things are different in the world of work ... Then, as long as you're here, which is only a small branch ... unless there's a meeting ... but when you go to MILAN!"

I have the dazed expression of someone truly unable to understand.

"Try to sort yourself out! You're a youngster ... Me too, when I first saw you I thought 'and who's this, how dare he come in here without anyone introducing him to me' (though in fact I had been introduced to her immediately) ... I mean, for pity's sake ... look, really, I'm telling you this as if I was your mother, don't think that I'm crazy ... but the world of work is different, I wouldn't want you to think ... really, take my advice."

Zoe uses the episode to draw the merchants' attention to a number of features. Firstly, the organization's internal control mechanisms. One could, in fact, offer various interpretations of 'what really happened' and 'why' a secretary should take it upon herself to inform an outsider about the dress code and behavioural standards necessary for him or her not to be 'noticed'. Apart from these aspects, however, it is the entire process that is significant and raises further questions. The secretary mentions an event that occurred at a time and a place where she was not present. For her to know about it, she must have been told by someone. That 'someone' may have been a superior or a colleague, but she nonetheless felt authorized to intervene; or perhaps her intervention was explicitly requested; or perhaps whoever told her about it knew that it would prompt her to intervene; or perhaps it was a combination of all three explanations. Whatever the case may be, the aspect to emphasise is the intrusiveness with which the organization (albeit in the reassuring and kindly guise of 'mama') enters people's personal lives, to the point of rummaging through their wardrobes. Moreover, Sigma's speech evinces that Aspera's various branch offices do not all enjoy the same prestige. Yet there is a background image that must always be conveyed and enhanced during the ritual situations (like meetings, for example) when the organization meets (and represents itself to) itself. And then there is Sigma's expression "the habit doesn't make the monk and the desk doesn't make the man", which fascinates Zoe because it involves a plethora of metaphors: the reference to so markedly male a figure as a 'monk', the connection between religious life and work, the translation of a popular Italian saying ("the habit doesn't make the monk") into an organizational maxim, the assigning of the same aesthetic value to a desk as to a monk's habit, the image of the desk as something 'worn' like a habit ... in short, the translation into the merchants' jargon of the Weberian "Protestant Ethic and the Spirit of Capitalism". All these elements (control, hierarchies, rituals, aesthetic canons, the metaphors that give meaning to organizational action) are well known to organization researchers, as well as being abundantly documented in the literature (the habit doesn't make the monk ... the desk doesn't make the man ... does research make the scholar?). But, Zoe asks himself, is there not a further interpretation to be made of the interaction with Sigma? He has reflected long on the matter and has

concluded that there is indeed something worth dwelling on: something that Sigma said but was then lost in the exchange.

This reflection was also stimulated by the events that followed his presentation. His entire speech, in fact, was intended to argue that Aspera's pervasive hierarchical structure impedes the spontaneous formation of communities of practice, however much the people that he has observed indubitably share practices, and first and foremost the practice of describing themselves as a community of practice. Zoe proposes to the merchants a reading of their work as 'display' activity: that is, as exhibiting, showing, parading, flaunting; forms of action whose common denominator is that they are centred on an object and directed towards an audience. And considering that the merchants talk so frequently of 'play', Zoe is beginning to see their activity as exactly that; not as comprising 'game rules' in Crozier's sense, but with the twofold meaning of 'game' (when he defines the content of consultancy work) and 'play' (with regard to 'how' the consultancy is done). This is the final image in Zoe's presentation. The merchants are enthusiastic, much more pleased than Zoe expected. They have been highly amused by the Sigma episode, and as he recounted it they glanced at each other and sniggered, muttering comments to each other like: "See! She's done it to him as well!" Secondly, the idea of the 'display-game' greatly interests them, and they entirely agree. Indeed, two hours after the presentation Beta (who was not present at the meeting) calls Zoe on his mobile phone to congratulate him on the presentation, and also to ask him for clarification about this idea of their work practice as a 'display-game'. Zoe is surprised because he thought that his speech, with its thinly veiled irony, would arouse at least conflicting reactions. All this enthusiasm and good humour makes him suspicious: perhaps the merchants can see something that has escaped him, because he is too absorbed in his ethnography. The suspicion is reinforced by a dream that comes to Zoe some nights later.

The ethnographer's dream

One night Zoe has an ethnographic dream. He dreams that he is observing a meeting of the knowledge merchants. The meeting is being held in one of the Aspera offices, but the room is structurally identical with the kitchen in the ethnographer's flat. The knowledge merchants are sitting around a table and talking; the ethnographer is seated at a distance from the group, close to the door. As he watches the meeting, the ethnographer feels a cold blast of air-conditioned air. He looks up at the ceiling, and notices that hanging above the table where the merchants are seated is a large and elaborate lighting fixture. The ethnographer's eyes follow the various filaments that radiate out from the main body of the object, and he realizes that what appeared at first sight to be a lighting fixture is in fact an enormous spider. The spider dominates the entire room, and the ethnographer now sees that its cobweb (which looks like ordinary electrical wiring) covers the merchants sitting around the table. "Fortunately," he thinks, "I'm outside. But them ... how can they fail to notice that they're covered with a cobweb?"

The dream continues. The next scene finds the ethnographer at one of the Aspera branch offices discussing his research with the knowledge merchants. At a certain point, the merchants take the ethnographer into an office and ask him to continue the discussion

sitting around a table. The ethnographer immediately recognizes the office: it is the kitchen in his flat! He realizes that they are going to have their discussion with an enormous spider hovering over their heads. He is not frightened, however. On the contrary, he is curious to see what will happen, to find out what he will see and feel beneath the cobweb. So he sits at the table with the knowledge merchants, and as the discussion proceeds he looks around in search of the spider and the cobweb. But he cannot see them: the only thing above his head is the large lighting fixture. He thinks that this is due to a trick of perspective, the same one that prevents the knowledge merchants from seeing the spider. However, there is something that does not add up: he knows that there is a spider, he has seen it very clearly, and he should be able to recognize it again without difficulty. Though the perspective may have changed, there must still be details that make the chandelier recognizable as a spider. The ethnographer continues to look up at the ceiling, in search of evidence of the spider, but he sees nothing except the main body and branches of the lighting fixture. Nor can he see the cobweb, only the electrical wiring. The ethnographer is utterly bewildered: he doubts his own sensations and his own memories, and continues to gaze up at the ceiling, showing little interest in the discussion (which still continues) and a certain amount of agitation. At a certain point, the knowledge merchant sitting closest to him (Beta) leans over and murmurs: "Have you seen the light fixture? You know, it's really a spider, and the room's covered by an enormous cobweb. As long as you sit at this table you won't see it, but I assure you it exists. Don't worry, though, the spider's harmless. The reason why we try to make it look like a lighting fixture is that we don't know how to explain why it's here. You know, so that the people who come in here aren't frightened ...".

When the ethnographer wakes up, he has the impression that things are getting clearer. The still unresolved aspect of his ethnographic observation and interpretation is 'why' Sigma cared so passionately about the appearance of a person who did NOT belong to the organization. But he had misunderstood: Sigma's entire speech was intended to point out to the ethnographer that his assent was not required because he was considered part of Aspera. She told him this very clearly at the outset: "the world of work is not university!", thus identifying the context of which the ethnographer was part and which framed the rest of her argument. Zoe thought that his role as 'researcher' exempted him from sharing the practices of the people observed, and more in general, from involvement in the projects being prepared by the merchants. He thought that 'merchandising' and 'researching' are distinct activities, and that his observations and interpretations were entirely unconnected with the merchant's trafficking in ideas.

He now begins to imagine a situation in which he, the research project, and the research group are instead an integral part of the merchants' project, and that they are all functional to ensuring its successful outcome.

With this doubt in mind, Zoe begins to notice a series of details that had previously escaped him. Three of them will suffice here as examples.

- One day, during a car journey, Delta says that he needs 'to take a leak'. He tells Omega to stop the car and relieves himself at the side of the road. He tells Zoe not to write it down, and Zoe realizes something new. When Delta or anyone else use expressions like 'don't write this down' or 'listen carefully', and similar peremptory

phrases, they are fashioning their community of practice. Their assertiveness is directed not at Zoe but at practices, some of which can be reported, others not. Taking a leak at the side of the road is not a practice to be shared. Putting on your make-up in the car is a relative aspect which can be mentioned. Two consultants engaging in informal conversation is a practice that should be consolidated and therefore carefully noted.

- One afternoon, Omega causes embarrassment between Zoe and another merchant by asking an inappropriate question. Zoe thanks her through gritted teeth, and Delta tells her that the mistake will certainly cost her a '2' in the final assessment. Delta is joking, but a doubt crosses Zoe's mind: what if Omega is really going to be assessed on her performance as 'observee'?
- One day, during a halt at a motorway service area, the ethnographer goes off for a moment while Delta and Omega are talking together. When he returns, Delta says to Omega: "Go on, tell him!" The two of them snigger. Zoe does not understand, and Delta explains that Omega has just told him that she now understands something he was telling her in the car. Delta thinks that it was a good ethnographic example of knowledge sharing, so he has asked Omega to repeat the scene for the ethnographer. Then they ask him if he believes everything that they tell him, and if he is not sometimes bored with listening to them. Zoe thinks that he is not bothered if what they tell him is 'true'; he also thinks that you need a boundless sense of self-importance to believe that someone can find you interesting for eight hours a day, three days a week, for three months on end.

But he is finally convinced of his suspicions when he re-reads parts of his fieldnotes taken during two days of observation:

7/5/99 – Aspera

The context is the Conference Room at Aspera. The room contains a (large) table with seven chairs, a photocopier, two telephones, a picture (an abstract), a bookcase displaying various Aspera publications and another bookcase containing various management and computer journals. Soemia has been in the room until three minutes ago. Soemia has just asked Delta and Omega what they have to talk about. They tell her that they've got to prepare the project for the client. She says that she'll go back to the other office and that if they need her, they should call her (QUESTION: why does Soemia spend so much time in the Aspera offices? Why is she on such good terms with Delta and Omega? In what way could they have need of her?)

Omega: "Are we going to do the slide straight way?"

Delta: "Work on the living flesh?" (COMMENT: but if the slides are "living flesh", are concepts "dead meat"?).

(...)

They joke about the methodology to use and call it the "Schnauzer method" and the "Strunz model". They are laughing so loudly that Omega asks me to shut the door. (without thinking, I close the door, but I am surprised ... am I not a shadow?).

Soemia comes into the office. She has spoken to another merchant, who needs to receive some of their documents. He also has a problem with his PC. Omega offers to lend him her computer; first, however, they go off together to have a look at the other one. (COMMENT: Soemia's presence is taken a little too much for granted).

(...)

Delta and Omega distinguish between 'functional' skills (concerning the technical aspects of the job) and 'intrinsic' skills (leadership, innovativeness, analytical ability, etc.) and try to think of some examples to put on the slide. Omega asks me to help them. I answer, "I don't exist!" She

says, "Yes, but you're here, you're watching us do this presentation, trying to define concepts ... who knows what you think ... but we've got to find a simple way to explain it to the client".

They decide to use 'knowing how to cook' as an example of a functional skill. Omega says that it should be clear that they are taking only 'knowing how to make pasta' as an example. Delta asks me to help them, even if only to come up with a formal definition of 'knowing how to make pasta'. I say 'no'. He asks if it is because I am observing them, or because I don't like what they are doing. Obviously it is because of the role that I am performing. Then Delta tells Omega to ignore me and not to be distracted by me. Omega points out that it is *he* who is being distracted.

They want to find a fictitious name for the methodology. Omega objects. Delta replies that there is no need: they can do it as joke for when they show the slide to Beta. Omega says that they should do the 'real' one first and then attach the 'fake' one afterwards.

Delta: "Beyond the bounds of decency".

Omega. "Beyond 5 ... we'll send the project to Beta and tell him that we deserve a 5."

They compile a 'joke' slide on the methodology.

They are enjoying themselves hugely. They imagine a series of absurd situations. In one of them, Beta sends the presentation to the Buyer without even looking at it, and the Buyer telephones him for explanations. Delta says that if they had someone able write articles in perfect academic style, they could pass anything off as genuine: that would be a good source of business!

They don't know what title to give to the questionnaire. They decide on "Semi-structured questionnaire in electronic format, which means ... everything and nothing!" (they laugh)

I ask why they have not cited the authors whose definitions they are using. Delta tells Omega to make up some references, "so that we've got our backs covered. Well done Omega, we've done a good job today ... complete tosh, but well done". Delta says that they should involve Soemia during the afternoon so that they can work out how to structure the list of skills (comment: Soemia?).

(...)

Delta has told Omega to set up a conference call with Beta and Gamma. Gamma is on the line. They have sent the presentation to him, and he looks through it while they explain. They come to the 'joke' slide and laugh loudly. Gamma says what he thinks and then surprises everyone with a new definition: "Strategic Knowledge Areas". On conclusion of the telephone call, Delta and Omega begin work on Gamma's suggestions. Soemia is also in the room, writing memos to Beta and Gamma (comment: Soemia??)

(...)

Delta asks Omega to help him with the colours to use in the slides, but Omega is too busy helping Soemia send the memos (comment: SOEMIA??).

(...)

14/7/99 (Venice)

I pick Omega up at 8:30 outside her apartment building. We leave for Venice, where we have an appointment with Delta (outside his apartment building).

Omega tells me about yesterday evening. She worked in the office until 21.45. Sigma tore her off a strip for making a mistake. Omega had met an important Aspera Partner who was in her office branch yesterday. She was impressed by him because "he seemed the calmest person in the world. And he coordinates the Bologna and Brescia offices ... learning how to manage stress is probably one of the stages in the growth process ... and of leadership".

On our arrival in Venice, we find Delta waiting for us in a bar. We have coffee and talk about the possible involvement of other people in the Laguna University project. They'd like some psychologists to help with the 'group facilitation process' (in companies). They've already contacted some academic psychologists, but they don't know how far they can be available. (Delta): "We'll take a psychologist, spread him with Community, wrap him in a Mental Model, and stick an Intelligent Agent here [points to the centre of his forehead]".

When we have finished our coffee, we go off to the offices of Junior Enterprise, where they are working today. Junior Enterprise is a student association at the Economics Faculty of Venice University (NOTE: why are they going to work there?).

We go into the student union. A door to the right of the entrance gives onto a large room with three computers, cupboards and a photocopier. There are three people in the room. All those present place their mobile phones close to the window, otherwise they won't pick up a signal. After a

while, the window sill looks like a showcase for mobile phones, the number of which corresponds to the people in the room.

Delta and Omega move around casually: they put their things on a table, plug the computers into a telephone socket so that they can go online, they borrow some floppy disks (NOTE: while we were at the bar, Delta invited a friend/colleague whom he met by chance to 'drop by').

(...)

Delta reads a document written by Omega. He shows her the changes that he has made and suggests some further specifications to insert. Then he concludes: "Anyway, kids ... it's the dog's bollocks ... have you seen how good it is, Zoe? ... with all the strategic areas, all the little pictures ... great, isn't it?"

(...)

Where the ethnographer moves out of the shadow

Zoe realizes that his role as 'shadow' is purely illusionary. Or at least, if he wants to understand something about the situation of which he is part (any talk of 'observation' at this point would be entirely specious), he must stop 'reflecting' Omega and begin 'reflecting' himself. He continues to act the ethnographer, but he uses two different notebooks: one for his fieldnotes as Omega's shadow, the other for notes on his role in the group (he is affected by 'reflexivity syndrome', a virus imported many years ago by Clifford and Marcus after their sojourn among the postmodern tribe. The disease can be caught by reading their book *Writing Culture*, and in general by conducting any sort of ethnography where 'otherness' is assumed to be a process and not a result).

Zoe decides to investigate Soemia. Without much difficulty (he only has to buy Delta a couple of drinks), he discovers that Soemia is an old friend of Omega and Delta. She has the keys to Delta's flat and she knows all Omega's computer passwords (why is it, Zoe asks himself, that in the Internet age having a set of someone's house keys and knowing someone's passwords are equally indicative of intimacy). She is their close friend, therefore. At the bar, Delta cannot believe that he's got an ethnographer all to himself, and after the third glass of wine begins to talk freely, without being prompted by questions. He tells Zoe that Omega is a close friend of his wife, who pressured Delta to find a job for Omega at Aspera. Delta's wife used to be the president of Junior Enterprise, and it was there that she met Omega. Moreover, although Junior Enterprise is a student association, it has an invisible link with Aspera which becomes more visible if you look at the titles of the seminars that it has organized ('Merchants for a day', or 'Selling is beautiful. The outstanding example of Aspera') and its source of funding (only and exclusively Aspera). Delta chuckles as he tells Zoe the title of the next conference: 'The Knowledge Game'...

Zoe waits patiently. As Delta drunkenly yells the *Merchant's Song*³ at the top of his voice around the alleyways of Venice, Zoe stupefies him with a tedious academic

3 Which runs as follows:

I'll tell you about my mobile phone so fine
I log on to the net and surf the web on-line.
To life a liberal attitude I take
I judge people only on how much money they make.

discourse on the importance of practice in learning, gets him to sign an application form, and bundles him on a plane to Lancaster, where the first international conference on 'Learning in Practice' is being held.

When Delta wakes up, he has a hangover. He is not sure where he is, and everyone laughs at him because he is dressed as a merchant (grey suit, tie, white shirt, shoes and socks) even though it is July and extremely hot. He meets Ms. Potential of Critique⁴ and spends the next few days amid the dimensions of Power/Knowledge, Gender/Knowledge and Practice/Knowledge.

When he returns to Italy, Delta vows to take revenge on Zoe for what he has made him suffer. He invites him to his summer villa and submerges him with ethnographic indiscretions, dazing him with scabrous details. He confesses to Zoe that it was he who had ensured that Omega would be the 'newcomer' that Zoe observed, because he has always disliked her. He says that ethnography was chosen as a research area only because they couldn't think of anything more incomprehensible. He also tells the ethnographer about the many times that he and the other merchants have laughed at him because of an episode when Zoe was asked about the pay-off of ethnography and he burst into tears. Yet Delta concludes by saying that meeting Ms. Potential of Critique has changed him, and that he has decided to quit being a merchant.

Zoe is sincerely moved. He thinks that he must have been an egocentric and cynical ethnographer indeed to think that this warm-hearted and sensitive knowledge merchant was plotting against him. He decides to quit being the ethnographer and to 'restore' to Delta all the ethnographic insights accumulated during three months of observation. With an extreme act of generosity, he even gives Delta a copy of his fieldnotes, thinking that they may assist in his catharsis.

By now it is late July, and this is also the episode when Zoe and Delta wish each other happy holidays and make an appointment for September.

September: where the ethnographer realizes what 'distributed intelligence' means to a knowledge merchant

September is the month when the project is scheduled to end. The ethnographer has spent the summer on holiday, but he has also finished his research report and is ready to submit it. When he downloads his e-mail accumulated during a month spent away from

I'm a manager happy with his new portfolio
Happy to sell knowledge to whoever has dough.

4 The invention of 'Ms. Potential of Critique' is due to Michael Habersam 'Investigations into Investigative Controlling – or: What to Learn from 'Detective Columbo'?', Paper presented at the Conference Personnel, Organization, Poststructuralism, Innsbruck, 1-2 June 2001.

home, he notes that there is a message from Soemia. He reads that Delta has told Soemia about his ethnographic observations and has given her some of the material so that she can make up for data that she has been unable to find. The ethnographer is dismayed: What? His 'raw' observations in the (raw) hands of Soemia, she who can extract a mental model from even a courgette?

But Zoe's electronic mailbox has another surprise in store: a document signed by Delta which says that given that the various research areas have only been 'exploratory' in nature, the project's output will consist not of a software application to support the formation of online communities but a one-day conference at Laguna University, during which Aspera will present the results of 'its' research to an invited audience (all private individuals or wannabe merchants). Also because (though this is not stated in the document but Zoe knows it full well) Soemia has managed to conduct only one solitary interview (with Delta for that matter) and therefore to extract only one mental model. However much Delta's mental model may be interesting, to generalize on it alone would be difficult to justify, to say the least. And then Bassiano, the 'intelligent agents' researcher, has come to a dead end. After exhaustive bibliographical research and brain-racking on the architecture of an 'intelligent agent', he has read an article (thanks – or otherwise – to Zoe, who pointed it out to him) which tells him that the most prestigious technological research centres in the USA have been working on the subject for fifteen years. The majority of them, however, have only tried to construct an 'agent' (given the unrealistic premises of the project), finding it impossible to go much further than a refined search engine. Bassiano thus has realized that his thesis is practically dead in the water. And moreover (thanks to Murphy's law) he had been called up to start military service within a month. He has therefore consigned a file of bibliographical material to Aspera and dropped everything.

The introductory pages to the conference presentation bear Delta's signature and run as follows:

THE KNOWLEDGE ERA: HOW TO HANDLE A DISTRIBUTED INTELLIGENCE SYSTEM

The community as a system which 'generates' new knowledge.

A community is a typical social arrangement whose nature may be 'congenial' to the generation of distributed knowledge. In other words, a community is a social device able to activate distributed intelligence. Communities can do many things. They can foster sentiments, projects, symbols and beliefs through the learning of their members. Such learning may be more closely focused on the transmission of existing knowledge than on the generation of new knowledge. Discussed here are communities understood as knowledge generating systems which yield value for the community itself and its members within a broader social system. Our intention is to describe some typical features of this kind of community as revealed by our own observations. To this end we shall use stories, events and real situations collected by a group of youngsters who have studied our own organization for some months.

The novice as the activator of knowledge

Under our approach, those who join an organization, from a strictly 'cognitive' point of view simultaneously join a community system. More or less inevitably, and owing to various circumstances, entry into a community marks the beginning of a learning path. But of what type? It is sometimes conservative (acquisition) and sometimes generative (production). Our group, which tends towards the latter, places the new entrant in a particular situation. Rather than an apprentice in consolidated knowledge, he or she is considered to be the potential bearer of new ideas capable of recasting, even crucially, the geometry of existing ones. (...)

Practice as a meta-knowledge tradition to be used for innovation

If the novice learns how to innovate, the suspicion arises that we, though a generative community, display certain features of a 'conservative' one. In other words, we convey to the new entrant knowledge that tends to persist over time and to be handed down. But more than knowledge of content, this is knowledge of process: that is, an array of 'instruments' which we give to new entrants so that they can use them to generate innovation. (...)

The game as a dimension of legitimacy

What is the typical condition for a new entrant to become an 'innovator novice'? Our practice resembles a 'game'. A game which extends beyond its ludic content and also displays the essential features of the game-player. We define a 'player' as someone who is allocated more resources than responsibility. (...) Our practice consists solely in the advice that we give to our game-players: "enjoy yourselves".

From the periphery to the centre: the acquisition of 'validation power'

What is the role of those who form the core of the community, its senior members? If the novice is the true generator of knowledge, in what are experts actually expert?

We believe that senior figures have a twofold role to perform. Firstly, they must promote innovation, enabling the novices to play and providing the surplus resources without which the game cannot take place. Secondly, they must validate the innovation produced by the newcomers by means of a grid of parameters in part tacit, in part explicit, which represent the criteria that the community uses to decide what is meaningful and what is not. (...)

Beware of knowledge that becomes a religion: the intermixing role of the team

It should be emphasised that if the community is left to itself, it will close itself off against groups expressing a different vision of the world. Practice tends to become dogma, innovation to become ideology. We believe that a team is a device able to perform a twofold role. Firstly, the team induces its members to scrutinise and revise their entrenched beliefs (...). Secondly, the team intermixes different visions of the world. (...) We believe that the formation of teams, insofar as this is not a spontaneous process, should be managed by recasting and revising the current geometries of local knowledge.

Now, who honestly believes that the above document was exclusively the fruit of the analytical capacity of a knowledge merchant? The ethnographer certainly does not. Indeed, he recognizes a large quantity of words and ideas identical to ones (although expressed much more critically) in the materials that he gave to Delta at the beginning of the summer. Zoe now has all the elements necessary to reinterpret the entire story from a different standpoint. He reinterprets the story by translating it in terms of certain thoughts that came to him during summer as he savoured scallops from the bay of Saint Jacques, followed the navigation routes of Portuguese sailors, and met caravans of people travelling, for different reasons, but inexplicably in the same direction.

Delta is a knowledge merchant in his third year of employ with Aspera. He is an exceedingly good merchant – he has invariably been awarded '5' in CARE assessments – but he knows very well that in order to pass from the level of 'Expert-merchant' to 'Manager-merchant', he must now cultivate a new knowledge business that bears his personal signature. He finds a sufficiently new, fashionable and ill-defined concept ('communities of practice') and decides to stake his career on it. This may seem an irrational gamble, but risk is inherent in any act centred on such an unpredictable phenomenon as knowledge. As chance will have it, the concept chosen by Delta is a matter of debate in the academic community, as unknown in that of the market. For

Delta this is both an opportunity and a constraint. If he manages to introduce the concept, he will be rated as 'outstanding', as someone constantly able to devise new projects. But in order to do so he must transform the concept into a label: a black box which nobody would ever take it in mind to investigate. The first thing to do is find a vocabulary comprehensible to his actual and potential interlocutors: 'community' and 'practice' are words without a particular market tradition; better to replace them with 'system' and 'intelligence', two terms which do not smack too greatly of Marxism. Two terms, moreover, that can be easily fashioned into engineering metaphors with a bearing on process management software programs.

At this point the undertaking becomes somewhat complicated. Delta has to find a way to recount to his clients a story slightly different from those to which they are accustomed. Merchants, in fact, have always told businesses that if they manage and monitor knowledge correctly, they will increase their turnover. Now he has to persuade them that managing knowledge is absolutely necessary, not just to increase turnover but to survive, because in the 'Knowledge Era' only those businesses able to monitor knowledges effectively will remain in the market. It is vital to talk of 'knowledges' in the plural, so that the same knowledge merchandise can be re-sold several times, by having clients believe that the knowledge has been created specifically for them. But if a knowledge merchant starts telling a 'new' story, he must be able to 'certify' it in some way. Imagine yourself in his shoes: I am a knowledge merchant; I tell my clients that knowledge is by now the only production factor worth investing in (or else be forced out of the market). In order to be credible, I must somehow vouch for the fact that my organization (which, moreover, is an organization explicitly founded on the marketing of knowledge) is the first to manage these processes efficiently. If this 'certification' is provided by another organization which apparently has nothing to do with the market, then my story becomes all the more credible. There thus materializes a research group set up at a young but wealthy university and comprising persons with credentials as researchers. Behold, therefore, the ethnographer who flanks the merchants when they visit the client and publicly attests to the knowledge monitoring process to which Aspera is the first to subject itself. Behold, therefore, the low-cost personnel (Soemia, for example) who work – in what capacity does not matter – in Aspera's offices. Behold, therefore, how Aspera acquires a cheap bibliographical survey of a cutting-edge technological innovation. Behold, therefore, how Aspera can establish itself as an economic-institutional referent by organizing a conference which ratifies its interest in research and which bolsters the academic legitimacy of Laguna University (which is funded by Aspera, amongst others). Even should the process have no other result, satisfactory outlets for the further delivery of knowledge have been created. And, finally, if the project is a flop, then the 'youngsters' (as Delta calls them in the document) who worked on it can be blamed.

Indeed, it is for precisely this reason that Aspera – in the person of Beta – has allowed Delta to set up the entire process. Beta, who has the DNA of a merchant, knew from the outset how things would pan out. According to Aspera's reference parameters, ethnography has practically nil value added; mental models may be marketable, but only if they are functional to some end; a software program is an excellent black box, but something must be put into it.

Zoe thinks back to his dream. Again according to Aspera's reference parameters, what is most important is bringing new people under the spider's cobweb, possibly without their realizing it. And this, as Beta says in the dream, is not because the spider is dangerous but because it is a disquieting presence which nobody is able to explain. Zoe thinks that the story explains exactly this, and he is pervaded by ethnographic joy.

Six months later, back at Zoe's university, he is stopped by a girl who, without even introducing herself, begins to talk about his Aspera research report. Zoe has completely forgotten it, and although he has managed to have it published (after black-boxing some processes), it strikes him as incredible that someone has read it so carefully. Suddenly, the girl refers to the episode of the mama/secretary, which does not appear in the published version – this Zoe knows because a reviewer advised him to remove the episode entirely because it was 'private and irrelevant'. Zoe discovers that the girl is writing her thesis at Aspera, where on the basis of a simple scheme developed by Zoe to model his observations, she is trying to write a software program. She has been told (by Soemia, who now has a permanent job at Aspera) to talk to the ethnographer, both for clarification and for her personal problems. Zoe pretends not to understand, and tells the girl to pay attention to the lighting fixture above the table where they ask her to sit. Whereupon he dissolves into a shadow (this is the latest ethnographic trick that he has learnt and he uses it constantly).

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