KNOWLEDGE AND INFORMATION TECHNOLOGY: THE MIDAS TOUCH?

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Abstract

ERP systems embody what practitioners term 'information blueprints' of organizations, blueprints that are either defined specifically by the user organization, or alternatively based on business models designed into the ERP system. User companies are thus compelled to align their business processes and work practices to this blueprint. In brief, ERP systems will increasingly become a key vehicle through which organizations of the future will be enacted. It creates visibilities and, as a consequence, raises expectations of increased management knowledge and an extended scope of application, decision making, and action. Based on the first 6 months of empirical research our paper begins to examine the claims made on behalf of these systems and theorises the idea of an emergent 'differance' spreading between a series of divisions in organization and organizational processes. Of particular importance is an aporetic space in organization which seems to emerge between the idea of data, information and knowledge and opens up a hiatus in social relations at work that stimulates the potential for greater degrees of conflict, confusion and dissent.

Keywords: Knowledge, Information Systems, Management, Dis/Organization.

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Introduction

Information and knowledge are routinely hailed as *the* key resource for organizational survival and competitive advantage. Perhaps we should not be surprised that in our ever more turbulent and unforgiving global business environment 'information' and 'knowledge' are conflated in this way and treated as synonymous. Clarity, definition, and the semantics of language seem to be victims of a proliferating confusion arising from the latest round of globalisation and a generalised speeding up of communications and transactions (Vattimo, 1992). That Foucault (1970) did not locate the implosive nihilistic motor of epistemic breaks within the discourse and practice of business application software is probably not surprising, but our paper begins to sketch out how this dimension of work organization is central to what we might call a contemporary disalignment of words and things.

There is a familiar information age fable to the effect that each issue of *The New York Times* contains more information than "a contemporary of Shakespeare" would normally encounter in "an entire lifetime". At the same time, such boasting often appears tinged with anxiety (e.g. Andersen Consulting, 1995; Wurman, 1990). This is reflected, for instance, in the frequent citations of T.S. Eliot's *Choruses from the Rock* in management and information systems texts, neither genre normally given to poetical musings:

> "Where is the wisdom we have lost in knowledge?
> Where is the knowledge we have lost in information?"

There can be little doubt that the widespread use of information and communication technologies (ICTs) is generating unprecedented amounts of information (or at least data). Activities, both 'within' organizational boundaries, and 'without', through relationships that cut across them, are increasingly mediated by ICT-based applications. These processes generate a multiplicity of electronic-based records. Everything and everyone that comes into contact with contemporary organization is, it appears, transformed into data. Indeed we might go further to suggest that any-*thing* and any-*one* is only granted the possibility of an ontological existence by virtue of today's information management systems, an existence

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that is simultaneously and paradoxically *eroded* by the very same systems. There are many reasons to believe that the abundance of data has not always entailed less uncertainty or, what we might call, 'better' knowledge, as had been originally envisaged. Information technology is often accused of producing both too much (data) and too little (knowledge); ICTs as it were, generate both lack and excess.

In some accounts at least, contemporary organizations appear to share the predicament of Midas, the legendary Phrygian king to whom the gods granted the power to turn all he touched into gold, including, unfortunately, his food and his children. Not dissimilarly modern organizations – or so the story goes - transform everything (and everyone) they come into contact with into electronic data but nevertheless still cannot satisfy their urgent need for timely, reliable knowledge. Against this backdrop, there is an ever-expanding range of technological fixes designed to facilitate the transformation of mere data into usable business knowledge. Drawing on ethnographic research currently being carried out by the authors, this paper focuses on a particular class of ICT tools for managing organizational activities best exemplified by Enterprise Resource Planning Systems (ERP), which have come to dominate the IT landscape of most large 'first world' companies and are fast gaining ground elsewhere. Furthermore this dominance is currently in the process of being further extended as ERP systems increasingly migrate beyond the commercial arena. It could be argued therefore that ERP is transforming the means by which contemporary organizations define, collect, manage and provide access to 'information'. The paper takes one step back from the currently prominent topic of 'knowledge management' in order to probe a number of more basic questions concerning the manner in which organizations 'know' their environment and themselves. For instance, what are the different expectations and claims made on behalf of the system by different strategic actors and interest groups? How are struggles over meaning conducted and (re)definitions of the organization and its 'variables' arrived at? At what costs? With what consequences? What knowledge is being collected and circulated and how are the different communities of practice being (re)defined? Moreover, how are their particular ways of formulating information and knowledge accomplished in relation to ERP systems?

The Enterprise Resource Planning Revolution

The late 1990s witnessed what has been since described as the dawn of "The Enterprise Resource Planning Revolution" (Ross and Vitale 2000). During this time, ERP commercial software packages became the de facto standard in many American and European organizations including most *Fortune* 500 companies (Kumar and Van Hillegersberg 2000). By the turn of the century, ERP related sales and associated consultancy fees had reached US$40 billion (Willcocks and Sykes 2000). The high costs of fixing the Y2K problem had finally delivered the *coup de grace* to the opaque patchwork of fragmented legacy systems that had until then often dominated the IT landscape (Bannister 2001). Against this backdrop, ERP systems appear to represent a sort of silver bullet, "the answer to the Information Age's wildest dreams" (Davenport 2000: 6): An open, enterprise-wide modular infrastructure that would allow the streamlining of business processes and the elimination of inefficiencies and duplications of effort and data, throughout the user organizations. ERP systems it seemed, would finally deliver the seamless integration of transaction-oriented data and core business processes - previous entrapped in separate and sometimes incompatible, software applications - thus making possible the effortless tracking of the impact of each set of organizational activities and transactions (say sales) upon all the others (such as warehousing, manufacturing, supply chains, distribution, finance or human resources). What is particularly relevant to our concerns here, is that ERP systems enact a specific vision of organization in terms of a IS enabled regime of co-ordination, visibility and inspection and therefore constitute, as Davenport (2000) enthuses, the obvious off-the-shelf solution to problems of dis-organization - typically conceived as (IS mediated) opacity, fragmentation and discord. ERP systems allow the co-ordination of business operations across geographically dispersed sites and, furthermore, the provision of connectivity between businesses located all along a company's supply chain.

ERP represents an understanding of organizations as an entity with *generic business needs* that can be met by standardised packages when combined with the appropriate consultancy expertise. Thus, ERP systems embody 'information blueprints' of the user end-user organization(s). Such templates are either defined specifically for that organization, (and

mapped on to the processes and terminology used by the vendor[1]), or more commonly, based on business models claimed to represent 'industry best practice' for each particular process designed into the system. End-user organizations are consequently required to re-engineer their business processes in order to conform to those presupposed by this template. An ERP system presupposes and requires that organizational members follow a standardised sequence of steps in order to accomplish any given task. The popular SAP/R3 system, for instance, specifies over a thousand processes, which are assumed to capture most of the activities that a 'normal' organization might perform. That is to say, organizations as ERP consumers enter into a long-term relationship with the vendor which entails the sacrifice of a significant amount of control over its processes and practices which must thereafter reflect the de-contextualised 'best practice' demanded by the system. An organization, therefore, does not so much buy but rather *buys into* an ERP 'system' – a complex system, that is, one that is more akin to that logic of systems developed by Luhmann (1995): temporal, iterative, recursive, autopoietic and compelled towards ubiquity, autonomy and closure. At this point, perhaps an impossible point given its repercussions for anything 'outside' (Derrida, 1978), its logic becomes il-logical or even *alogical*, constitutive of a form of organization that is increasingly paradoxical, turbulent and unpredictable. In the next section our case study begins to illustrate the early trace of these illogic or alogic consequences evident in the shadow of 'disciplinary' processes, denials and exclusions, the paradoxes and reversals, which accompany the formal, technical process of ICT implementation and application.

Fabrica PLC

Fabrica PLC is an international manufacturing firm with headquarters in the North of England. It has two main divisions producing its products for two different worldwide markets. By 2004 Fabrica has accumulated four ERP systems: one working in seven countries in Europe, which we will focus on; a second ERP for their second business area which was installed in the UK in 2003 and which is planned to go worldwide; a third (in the same business area) which is in Italy, Spain and France and was introduced in 1999; and a fourth also in the same business area developed in about 1999 and based in Australia. In

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[1] 'Translated' in Callon's (1986) terminology.

1998 Fabrica PLC began the implementation of an organization wide ERP system for their first business area as part of a process of business change which aimed to consolidate both its business processes and information systems across the European organization. The management led strategic vision that led to the uptake of SAP/R3 drew upon the notions outlined above. The decision to implement an organization wide ERP system required an acceptance of a particular business philosophy, acknowledgement that it would entail a long term relationship with the vendor and the hope that this decision would bring about fundamental organizational change which would allow Fabrica PLC to remain competitive in evolving global markets. It was realised that Fabrica needed to develop for itself not country specific processes as it already had, but global processes. The organization of manufacturing plants in eight different countries had to be consolidated into one European business in order that the firm could be seen 'to be a European player'. The disparate IT systems of the various countries' manufacturing companies however were conceived as one of the main barriers to the successful creation of a consolidated European business.

Like most large companies, Fabrica PLC had previously operated a series of 'legacy' systems in discrete areas of the business. Information technologies and business activities had been organizationally separated from one another, the former considered as a series of tools purchased in each business area of each country as a result of small group decision making rather than board level strategic thinking. These were considered to be the cause of blocks to information flow resulting in data 'silos'.

Not one system could talk to each other. It was a nightmare to get any kind of coding or financial position. None of us could compare anything of how we were doing in comparative terms without a great deal of effort to get data from one system to another. [RM]

Data held by legacy systems was notoriously difficult to interrogate and the interrelationships between different parts of the organization were obscured and severed by the isolation of information in discrete systems.

Whilst the driving force behind this change was the need for an integrated European business, SAP was the means by which this was achieved. It was both "*the tool, and to some extent the excuse*" for business change. SAP thus not only seemed to promise the means of achieving an integration of these different businesses through the replacement of their diverse legacy systems but in fact became a key part of the motivation to implement organizational change - that is, "*to drive it with one system*". SAP 4.0b was implemented firstly in the UK, followed by Germany, and then simultaneously in Italy, Finland and Sweden. France, Holland and most recently Poland completed the rollout in October 2002.

One of the central claims made for ERP was that this integrated information gathering and data storage system would enable the sharing of information between different areas of the business, with the end result that people would be able to gain an overview of the company. In this sense the ERP system would provide a mode of seeing and thus 'knowing' the organization which would discipline ways of *producing* and *enacting* organization. However the processes through which the ERP systems shaped the way in which the organization was known went beyond the technology itself. Through the implementation process emerged a number of key categories through which the organization and the groups of people within it were conceptualised. By exploring these categories and the ways in which they were utilised in this particular case, we can go beyond a technology focused view of the role of ERP, to reveal how alternative ways of knowing the organization were produced or denied by the activity of putting in place an ERP system.

Development and Maintenance of an ERP System

The initial stage of development of SAP involved a team made up of a combination of consultants and Fabrica PLC Employees who had previously worked in different divisions of the organization. During development, the ERP system was adjusted to the business and *vice versa* through the concept of global processes. The development phase involved the identification of 'best practice', determined in part by the design of the system, which would provide a blueprint for an integrated European business. This was followed by an implementation period where the system was introduced and Fabrica PLC employees trained to use it.

Despite the transformational rhetoric of ERP and its claims for business reengineering, the process of implementing such a system was not simply a matter of changing business activities to fit the dictates of the system. The people involved in the implementation of SAP realised from the outset that there was a need for an ongoing process of adjustment - both of the technology and the processes it encoded - in order to retain consistency in the system. ERP systems are continually being adapted and adopted with wider organization in this mutually-adjusting way such that we can see here the nascent process of recursivity and iteration. Consistency is like a nodal point towards which the system is geared but which remains forever 'deferred' and 'differed'. The technology alone is unable to ensure the consistency of processes, and, furthermore, there is a continual need for technical support for those people who were using the technology. It was in reference to these concerns that a 'competency centre' was set up as the rollout came to an end. The initial job of the competency centre was to deal with teething problems that arose due to the lack of familiarity amongst the users of the system. For lack of familiarity we might read discursive re-training and discipline. However, its longer-term role was to deal with the issue of continuous improvement, or business change which was seen by at least one member of the competency centre to be "the biggest blocker of business". The competency centre was thus established not simply as a source of technical support, but as a site through which wider organizational change could be effected via the implementation of technology.

The Board

In the narration of Fabrica's ERP origin story, told to us by numerous competency centre staff, the organization was evoked through a number of key terms. Firstly, 'The Board' emerged as a meaningful category to which the rationale behind the SAP project could be attributed. At certain times, names of particular members of 'The Board' would be brought to the fore in explanations of personal projects or specific events, but more often the generic entity of 'The Board' sufficed as an explanatory symbol for the source of organizational power and authority.

"The board had determined that SAP was so important that we should have people who were experts in all the different fields, so that is how it came about"[RM]

'The Board' also represented the means through which the consistency of business processes could be achieved. Fabrica PLC was organised around four different business areas, each of which had a discrete board. The head of the Information Systems was very explicit about the relationship between 'The Board' as the determinant of strategic vision, and the use of SAP in the organization, positing a direct relationship between the board and an SAP system.

"If there is one board there should be one system if there is (sic) two boards there should be two systems. If it were me I'd have one board under the MD. So the strategy for SAP there is take the big one and copy and change as required."[HH]

In terms of the way in which the organization comes to know itself, 'The Board' was considered not only to have sanctioned the universality of the processes through which data would be collected and which would be intimately tied to the ERP system, but they were also positioned as the people who would be able to accrue the greatest benefit from the information collected by the system. Staff who were involved in maintaining the system and ensuring its functionality drew on imaginations of board level activities, and caricatures of the sentiments and emotions of members of 'The Board' to situate both the utility and shortcomings of the system.

Firstly 'The Board' was considered to need previously constructed reports. In this scenario they were thought not to have the time to explore specific data in any detail or to interrogate the processes behind its production.

"This is the board members type report. They have one presented to them as they don't want to drill down and investigate."[BW]

"At board level you can't expect them to know all the R3 transactions. In R3 though the information is there it is cumbersome to get at. You have to get here there and everywhere."[BW]

"The senior guys don't know any of this detail. They want more information out of SAP and want to see why some people are spending more than others, they want a report, but they don't know why the figures say what they say."

The decision to add a 'bolt-on' of Business Warehouse (BW) to the main structure of the system which would be better at providing summaries of data was justified in terms of the needs of 'The Board' and the limitations of 'standard SAP' to give them what they desired.

SAP has a transactional structure and is not built to produce high level reports. However this kind of reporting is one of the potential benefits of the collection of all this data which is held by the SAP system. This is where BW comes in, as it is able to transform data into high level reports. BW extracts information and transforms it. This is possible as it gets rid of much of the detail contained within SAP. BW presents data in a way that senior management can understand.

The process of extruding and summarising the vast quantities of data was considered necessary if "The Board" was going to find SAP of any use. Allusions to 'The Board' were also a means through which the difference between the inputting of data into SAP and its wider strategic utility was articulated.

Beyond this view of time-pressed board members, whose 'high level' interests required not only the abstraction of the business through its informatisation, but also a summarisation of abstraction in pre-defined formats, senior managers were also attributed with a less visible interest in the business which required some freedom and also privacy to investigate 'hunches'.

Senior managers are proud people and they like to know what is going on but don't want to have to take up someone else's time to find out. They often don't want to ask someone else

to find something out for them. Gut feelings are incredibly important 'following hunches',
but senior managers want a way of privately finding out whether the idea which they have
had might be radical or whether or it is complete nonsense, before telling the world about
it. 'They are not comfortable to share [their gut feelings] with our people.' It is very useful
for them to have a tool which they can ask a couple of questions of 'from the comfort of
their desks' before they make their idea public.

It is telling that this latter perspective on board level management was articulated by people
who were in positions of greater managerial responsibility within the competency centre.

So far we have seen how, at the board level, the organization is mapped and represented
through the simplification of data into generic and standardised reports. On the basis of
these reports the organization is supposed to come to 'know itself'. However, at the same
time we have illustrated how especially at higher levels, management are considered to be
involved in the generation of particular kinds of knowledge about the business, some of
which are presented to them as publicly available knowledge within the company in the
form of standard reports, some which will necessarily remain highly personal forms of
knowledge and yet others which will be transformed from personal knowledge into the
public domain for more general consumption. The provision for translation makes ERP a
kind of obligatory point of passage in organization, but hidden in the encoding of data
collection and storage are variables that embody assumptions about organization which
means that the subsequent manipulation and reading of data are already 'disciplined' and
programmed. Further evidence of this 'reification' (Alvesson and Willmott, 1996) can be
seen in the widespread deference to hierarchy and authority manifest in these understanding
of ERP origin stories and, as we see below, the attachment to visions of leadership and
strategy.

The Business

A second term which was utilised to great effect was that of "The Business". Whilst 'The
Board' conjured up images of strategic decision making processes by which SAP had been
designated a tool of organizational transformation, "The Business" was a more complex

category through which the relationship between the different ways in which the organization could be known were articulated. As used by people working on the maintenance and support of the ERP system, "The Business" referred to the people and activities for which SAP was utilised. "The Business" often incorporated 'The Board', but was more specifically used to refer to the activities of those who were entering data into the ERP system.

It was of considerable significance to members of the competency centre team that people working to support SAP had first hand experience of working in 'The Business'. Most of the competency centre staff had previously worked in other divisions of the organization and now worked on supporting the SAP module that referred to the area with which they had most experience. Many people made the point that they were not 'techies' and at least some of the staff expressed their own sense of dislocation at working in what might look from the outside like an IT department. "*If someone had said I'd be working in IT I'd have laughed but you fall into these things.*"

Although many people were connected to "The Business", an inclusivity and extensivity that was considered to be of central importance, there was a potential paradox in the fact that notions of cross skilling had been introduced into the competency centre. The aim of cross skilling was to encourage a greater sharing of expertise, so that knowledge of the system and its processes did not reside in a single individual. This meant that some people were starting to work on modules with which they did not have first hand familiarity. This was considered to be potentially problematic and such individuals were sometimes encouraged to visit those parts of the business which their module supported in order to better understand the relationship between the system as representation and the 'real world' to which it referred. At the same time that increasing levels of data were being generated by the system, great value was being placed on the situated knowledge that people had of "The Business" as the means through which they would be able to make sense of this data and the means through which it could be realised and experienced as information - and then potentially as knowledge.

Though the personal histories of people working in the competency centre frequently connected them directly to the business, "The Business" was predominantly positioned as 'other' than SAP and outside the work of the competency centre. In spite of the evident interrelationship between 'technology' and 'business', the two categories were invoked in order to highlight the translations and links, and in some sense, we might speculate, as a differential tensor against which the acquisitional hegemony of autopoietic-tending systems could generate its dynamo (cf.: Luhmann, 1995).

Though the organization was represented by the data in SAP, "The Business", at least as far as the competency centre team members were concerned, was something different from that which was represented by the data held in SAP. 'The Business' were users of SAP and their activities, and were constructed as a potential hindrance to the successful representation of the organization through the ERP system's abstraction.

This disassociation of "The Business" from Fabrica PLC or 'Fabs' as it was referred to by long running staff, deserves further exploration. What was the role of the business? Under what conditions and circumstances was it identified? How was it mobilised in the possibilities Fabrica, as an organization, had for knowing itself?

From the perspective of the competency centre staff, those people who made demands on the competency centre embodied "The Business". A system had been set up in order to prevent just anyone from within "The Business" contacting the competency centre, with the result that the relationships which occurred between the centre and the business were primarily relationships between the competency centre and two categories of people: "Key Users" and "Deputy Process Owners".

Key Users

Key Users were positioned from the perspective of the competency centre as representatives of all users of the system. They became visible to the competency centre when they made demands on the system, had needs related to it, and attempted through various different means to negotiate the demands and requirements of the work that they were doing in terms of its relationship with SAP. Key users were supposed to represent the

requirements of the people who they were working with. That is, if someone had a problem with the ERP system, then rather than calling the competency centre directly they were supposed to tell their key user who would contact the competency centre for them. The aim was to prevent the competency centre being flooded with similar calls.

The key user concept was not wholly adhered to. The fact that people in the competency centre had a background of working in the business meant that many still had enduring relationships with people who they had previously worked with. Often, people who had a personal connection to the competency centre staff would ring them directly rather than going through the key users. Overseas users were more likely to go through their key users both because of a lack of relationship with anyone in the competency centre, and the practical language barriers which meant direct telephone communication was more difficult than it was for UK workers. This subversion of procedure is evidence of the inevitable impulse to contingency and informality generated within the social relations of organization, an example of the intrusion of disorder and the counter-rational.

DPOs

Deputy Process Owners were responsible for ensuring that the business processes which had been put in place at the development stage of the ERP system retained their universality and that any changes which took place either to the system or the activities around the system were applied across the whole of the European Organization. Their position in relation to the business was to oversee the 'bigger picture', to interpret the needs of key users and determine whether or not they could be considered universal or specific.

One of the complaints frequently voiced about the key users was their tendency to try and put in 'change-requests' on the basis that they were legal requirements for financial reporting in their country. One of the deputy process owners noted that she relied on the expertise of the system to tell her whether or not claims that changes were necessary on the basis of legal requirement were true, as the standard requirements for all the current EU countries had been written into the system. The only country who she could not be sure about was Poland as their legal requirements were not as likely to be already written into the system.

The key user relationship was not as one sided as much of the ERP literature would suggest. As outlined above, it has been claimed that ERP systems differ from former uses of technologies as they provide a generic structure and way of working into which the business has to fit. However the role of the competency centre put great emphasis on a two-way dialogue and ongoing processes of change whereby the relationship between technical and business processes were mutually defined. The competency centre staff tended to see their relationship with key users as two sided and a means by which they could learn about business needs as much as imposing the technological architecture on their users. Numerous examples were given to us of times when a key user had proposed a useful change which had then benefited the whole business as it had been made into a global process. Though SAP had come as an 'off the shelf' solution, already having many business processes integrated into its design, over time the original system was gradually manipulated in ways that were specific to this particular organization. Questions of intellectual ownership, demarcation and organizational boundaries are therefore clearly in evidence.

This tension between predefined processes, continuous improvement and the need to maintain global processes provided the vocabulary and the concepts through which concerns about the representation of the business through information and data were debated in the specific circumstances of this organization and the particular relationships between different groups of people.

The existence of predefined processes embodied in the ERP technology worked on a supposition that an organization can 'know itself', the self-evidence of its existence being produced by a representation of the entity through the collection and communication of data. Articulated in particular in relation to 'The Board' and senior management level end users of the ERP system, the strategic benefit of such a technology relies on it being conceptualised as a means of abstracting, analysing, summarising and representing the organization in relatively general yet highly accurate terms. The use of the notion of 'high level' data refers to the kind of report read by senior staff, which is produced by the system in ways envisaged by the developers of SAP, resulting in reports which summarise and give

an accurate snapshot which can be read as a representation of the organization in space and time.

The idea of continuous improvement problematises the above model, by incorporating the issue of change into the configuration of such a technology. This can take the form of both external changes which affect the activities of an organization from outside, and the necessity for ongoing internal change which comes about in part through the identification of new issues and new ways of resolving problems by people working in different areas of the business in the course of their daily work. Furthermore, continuous improvement is a notion which enables people to deal with changes that bridge these two ends of the spectrum, for example the highly politicised practice of cost cutting and redundancies which inevitably affect the ways in which people interact with an ERP system. To see the system as merely impositional provides no space for acknowledging the inevitability and necessity of creativity and resistance in information gathering as a way of accomplishing organization.

Finally, the need to maintain global processes transforms processes of change and the specificity of circumstance into new models of best practice: or, in other words, new blueprints for the ways in which activities *should be* conducted. This raises important issues regarding not only the possibilities that ERP systems afford for transforming the ways in which organizations can represent themselves under particular circumstances but also how the ongoing commitment to ideals of uniformity, for the purposes of comparability and understanding, is either retained within an organization as a means of differentiation from their competitors, or becomes a resource which can be exchanged with the producers of such ERP systems and incorporated into future upgrades and new versions of these technologies.

In Fabrica PLC the use of an ERP system did not simply result in the generation of information, transformed by reports and analysis into knowledge. The ongoing negotiations around the ERP technology also had the effect of making evident or even producing the entity of 'the business', a category which persistently slips outside the clutches of the ERP system and evades its own proclivity for objective data representation, and yet whose role

in the production of the organizational entity was a source of creative tension with the developers and producers of the system. As a 'differentiator' then, we can begin to see that ERP is complicit with the production of flux and noise which causes the recursive motoricity of information systems to 'snag' or 'hiccup'. That 'The Business' was evoked as something other than the entity which was represented by the data points to the necessity of recognising the inevitability of different ways of knowing which is an on-going production of organizational activity: a 'falling out' from a *mise-en-abyme* that is generative of new boundaries, difference and multiplicity. Here lies one source of 'becoming' (Chia, 1996) and unpredictability in the on-going efforts of organization. The purpose of the ERP system to produce a picture or an image of the organization, where everything is potentially transformed into information for greater control and understanding, results in one kind of knowledge - whereby the organization is able to appear self evident through its representation in data. However, in their efforts to achieve this vision the competency centre required the emergence of an alternative way of knowing the organization, through categories such as "The Business" and "The Board". These different forms of knowing are not necessarily commensurate with one another but without the latter the production of the former would be an impossibility.

Conclusions

Midas's gift was bestowed to him by the god Dionysus after Midas had recognised and helped the satyr Silenus. Though the gift had tragic consequences – turning Midas's daughter into gold – Dionysus let Midas be relieved of his gift by telling him to wash in a river whose deposits of gold subsequently became the source of wealth for the Kingdom of Lydia. As everything in organization is translated into 'data' for the purposes of information production, storage and manipulation, we might expect a similar rigidification and sclerosis of management and organization that brings with it, as a 'necessary' consequence, its own processes of dissolution and ablution. So, if learning becomes reduced to the formulaic extraction of relevant data, which automatically 'speaks' its consequence for management decision and activity, we might expect, for example, a greater degree of fragility and vulnerability which in its turn portents profound organization wide shocks.

One further moral we might draw from the Midas touch is that, as researchers ourselves - in our own process of learning - we are in fact never where the 'action is' in organization; as John Law writes (1994:45), 'where the ethnographer is, the Action is Not'. We might then need to attend to the play of the absent-present in interviews, the silences and asides, the surprising and apparently incongruent which supplements the putative matter in hand. *You fall into things*, as one of our interviewees responded. Things also have an uncanny habit of getting out of hand, sometimes becoming *no-thing*, overloaded or underloaded by distribution, interpretation, and speculation. As one interviewee 'revealed' at the end of one long day of interviews and site-visits, 'Oh, and they're looking (Fabrica) to make a 20% reduction in employee headcount in the next 18 months'. Perhaps this is that future 'shock', the accident waiting to happen. This reminds us that as ethnographers we need to be continually re-starting, setting off to look elsewhere in organization, down surprising, bifurcating lines of these on-going extending networks mobilised by the application of information technology: construction and destruction, connection and disconnection, information and un-formation (see Cooper, 1986).

Paradox, irony, and reversibility are all explored in the tale of the Midas Touch, whom we might recall, perished with shame drinking bulls blood and crowned with a pair of ass's ears. The melancholy and bacchanalian delirium of Silenus is also never very far away in organization. Certainly the ongoing proliferation of language, 'buzz' words, technical terms, and acronyms associated with information and communication technologies such as ERP systems, accelerates the dissolution of words and things in organization. 'The Business' and 'The Board', 'the organization' and 'Fabrica', continually separate out, only to coalesce and miscegenate in a seemingly endless process of decay and incompletion. In the case of Fabrica, such an approach has left it with multiple ERP systems - yet it plans to end up with just two worldwide ERP systems: one for each division and its board. The end point still seems some several years away. But, as we left a meeting with the global head of business transformation recently, we eagerly picked up a copy of the business structure and its technology enablers: 'Don't worry', it said, 'it will change again.' Between the head and its body we find the middle of organization, which is close to the 'muddle' of management - the Acephalic (Bataille, 1985), confusion, and disarray. Perhaps it will be

our different approaches to this perplexity, maybe even our capacity for a new kind of ethnographic practice, that will increasingly determine our availability for learning - rather than any exponential increase of information retrieval and storage offered by contemporary information and communication technologies. The *tuché* of the middle, as opposed to the Midas touch.

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