THE ROLE OF MANAGEMENT CONSULTANTS IN THE DEVELOPMENT OF INFORMATION TECHNOLOGY: THE INDISSOLUBLE NATURE OF SOCIO-POLITICAL AND TECHNICAL SKILLS*

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ABSTRACT

This paper explores the role of management consultants in the development of information technology (IT) in organizations. Contending that the process of IT systems development is characterized by the exercise of power, the central theme of the argument concerns the indissoluble nature of the technical and socio-political skills inherent in IT consultancy practice. IT consultancy practice is not just socio-political when winning a contract — the sales pitch — and technical when developing an IT system. Rather, socio-political skills centred on the mobilization of discursive and symbolic resources are an inherent part of the construction of such systems.

INTRODUCTION: UNDERSTANDING CONSULTANTS IN IT

This paper sets out an argument about the role of management consultants in the development of information technology (IT) in organizations; in particular it considers the relationship between consultants' socio-political skills (e.g. the sales pitch, winning contracts, persuasion and communication, negotiating between different organizational factions) and their technical skills (e.g. advising on or implementing hardware and software, IT strategy reports, information requirements analysis). Drawing on research with consultants and with client organizations, we will argue that the technical and socio-political skills deployed by management consultants cannot be separated out, that they are inextricably intertwined. Because technology cannot be known independently of its representation through intermediaries (in this case consultants), the nature, development, access to and use of technology is tied to the exercise of power articulated through intermediary roles.
through the discursive and symbolic resources deployed, and so consultancy practice in relation to technology is constitutively socio-political.

We suggest that the role of consultants can be understood in relation to the use of strategems first for making themselves indispensable to clients, and second for maintaining that identity during the lifespan of a consultancy engagement – identity in the sense of shared meanings or understanding among the actors involved in a particular setting.\(^1\) Furthermore, these strategems are constitutive of the role of consultancy practice, the problems formulated and the solutions proposed.

The argument developed here is opportune on two counts: first, there is the simple fact that IT has come to be regarded as of increasing importance in organizations. Indeed, major IT-related developments represent a growing proportion of investment for many organizations in both the private and public sectors, in part reflecting the belief or hope that new technology will pave the way for greater efficiency and an enhanced competitive edge (see Porter and Millar, 1985). Second, despite the rhetoric of ‘technophilia’, ‘success’ stories and advertising copy, the development and implementation of IT systems remains problematic and can present a catalogue of difficulties. Indeed, recent scandals surrounding major IT projects in the City of London and the NHS testify to the continued vagaries of orchestrating organizations and computers.

The problems of systems development have helped to spur the search for better tools and techniques – e.g. formal systems development methods – as well as expertise; and one of the major sources of expertise on organizations and IT is provided by management consultancy firms, whose numbers have grown dramatically over recent years. Bryson et al. (1990) estimate the growth to have been in the region of 83 per cent between 1985 and 1989. Such a growth is reflected in annual revenue, which the Management Consultancies Association (MCA) states grew from £142m in 1985 to £706m in 1990 (Williams, 1991). Similarly, Labour Research (1988, p. 2) maintains that in real terms company spending on consultancy services trebled during the 1980s. Although the private sector still provides the bulk of work for consultancy firms, the public sector is becoming an ever more significant market for their services (see Welch, 1991, pp. 26–9; Williams, 1991; Outram, 1992). Part of the explanation for the dramatic rise in the use of management consultants is the growth of IT investment itself.\(^2\) Estimates of the total size of the IT consulting market vary greatly,\(^3\) but whatever its ‘real’ size it is arguably a significant proportion of consultancy services.

Yet, despite the growth in IT consultancy, comparatively little is known about the role of management consultants specializing in IT within organizations, or their impact on the particular IT systems that are eventually adopted. The research on which this paper is based focuses on management consultants who specialize in IT-based projects but who are part of general management consultancy firms. This is important because, unlike suppliers of IT equipment, this enables them to claim that IT is not just a technical issue but an organizational one as well, and that they have expertise in both areas. Thus while the focus of this paper is on IT consultancy, this body of practice cannot be divorced from wider management consultancy practice; indeed, it is the very link between the two which IT consultants emphasize in speaking about organizations and IT.
In general, the practice of management consultancy represents something of a conundrum. For at the same time that consultants are commonly regarded as sources of expertise, and increasingly large sums of money are changing hands for their services, they are often portrayed (e.g. in organizational anecdotes and jokes) as charlatans who charge exorbitant fees for telling clients what they already know (Sturdy et al., 1989). Moreover, it is no exaggeration to state that much of the literature that is available on management consultancy has tended to be of a descriptive and/or prescriptive nature (for examples see Shay, 1973, 1974; Hyman, 1987; Fuchs, 1975; Barron, 1986; Grosvenor, 1989; Margerison, 1988; Rassam and Oates, 1991). For instance, in what is probably the most comprehensive of such texts, published under the auspices of the International Labour Office, one finds an ‘introduction to the consulting profession, its nature, methods, organisation principles, behavioural rules and training practices’; and its stated aim is that of ‘upgrading . . . professional standards and practices’ (Kubr, 1976, pp. 1–2). However, while this fulfils its function as an introduction to consultancy, in so far as it covers the main areas of practice, the style in which it is written reflects the practical orientations and experiences of consultancy on the part of its contributors. It therefore fails to go beyond descriptions of what consultants themselves claim to do, and their prescriptions for best practice. The same criticism can be levelled at similar texts whose authors are or have been management consultants and who therefore tend to be implicitly concerned with legitimating and maintaining consultants’ public image (for good examples of this tendency see Grosvenor, 1989). In the academic literature, notable exceptions to the foregoing generalization include the work of Jackall (1989) and Sturdy et al. (1989, 1990); and we should also note the fairly voluminous literature on organizational development and ‘change agents’. However, these sources do not tend to deal in any detail with consultancy practice in the area of IT.

Reflecting on the nature of management consultancy practice in general, it is hardly surprising to suggest that it is frequently political; that is, the context, terms of reference and ensuing recommendations pertaining to a consultancy engagement may represent a continuation, by other means, of ongoing processes of co-operation, struggle and conflict between organizational groups. For instance, in certain cases consultants may be brought into an organization in order to be presented as the external (and by implication) objective originators of a policy which would not be accepted internally if thought to be derived from in-house senior management – especially if the latter are perceived as having vested interests in particular policies. But the question we seek to address here is whether such scepticism applies equally to consultancy practice in the area of IT. Put another way, are there aspects of consultancy practice in relation to organizations and IT which cannot be reduced to aspects of either organizational politics or the politics of the relationship between consultant and client?

The reasoning behind these questions derives of course from the observation that technology is often regarded as a neutral tool, as something separate from social or political matters; while the purposes to which it might be put are seen as a social or political issue, its internal ‘technical’ content or substance is not. This approach to technology and organizations is an important one

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because it provides a primary means of orientation through which the 'two' are known. Though different approaches disagree as to the direction of causality between technology and organizations – technological determinism (e.g. Woodward, 1965) versus organizational or managerial imperatives and choices (e.g. Child, 1972) – or perhaps opt for some form of mutual causality (e.g. Noble and Newman, 1993), each tends to assume that they are dealing with two separate and given object domains. For example, in the aftermath of the recent cancellation of the TAURUS project in the City of London, which aimed to remove the paper trail underpinning much of trading activity, many media reports carried the diagnosis that the software companies and management consultants involved had wrongly assumed that the problem they faced was a technical one, only to find that institutional politics was to confound the project. Similarly, in the recent scandal within Wessex Regional Health Authority concerning the collapse of a planned region-wide health information system project at an estimated cost of at least some £40 million, certain commentators suggested that the transgression of professional standards, if not corruption, lay at the root of the problem, rather than, say, technological constraints.

In the academic literature, McGivern's (1983) analysis of client-consultant interactions implies a separation between a consultant's levels of commitment and attitude, and his or her technical expertise, with clients valuing the former in preference to the latter. Similarly, in examining the power relationship between IT professionals and users, Markus and Bjorn-Andersen (1987) differentiate between technical issues and value issues. Again, some systems development methodologies take as their starting point the need to integrate two separate realms – the social (e.g. work design) and the technical (hardware and software) (Mumford, 1980). While some major figures within computer science look to formalism as a means of curbing the intrusion of politics into systems development, 'The most we can hope for is to limit the effect of description due to politics by making analysis more formal' (DeMarco, 1978, cited in Hirschheim and Klein, 1989, p. 1203). The dualism between the technical and the social (or political) which pervades each of these examples is also to be found amongst some of those authors who adopt a social constructivist view of technology: for example, Sørensen and Levold (1992) suggest that technological problems can be decomposed into technical and social aspects.

In short, then, a firm boundary is frequently drawn between what is technical and what is social, between the (material) properties of technological artifacts and the social relations in which they are embedded (Bloomfield and Vurdubakis, 1993). However, differentiating between the technical and the social is not some empirical or objectively given activity – we never know technology independently of the mediation of various accounts, experts or spokespersons – it is an exercise of power and therefore an expression of socio-political skills (Bloomfield and Best, 1992; Bloomfield and Vurdubakis, 1994; Callon, 1986; Latour, 1987). For example, the boundary between what is regarded as technical and what is seen as social is, as we shall show in our later case study, inherently flexible: a 'social' or 'organizational' problem may be constituted or translated as a 'technical' one; or a 'technical' problem may be translated into a 'social' one.
RESEARCH METHODOLOGY: A NOTE

The research on which this paper is based draws on a variety of research methods, but before going on to specify these, it is perhaps necessary to reiterate some well-rehearsed methodological issues in order to clarify the nature of our argument. The preceding epistemological position requires a methodological stance which eschews any *a priori* distinctions between what is ‘technical’ and what is ‘social’ (Callon, 1986). This represents the backbone of our case, and as such it is important to note that our argument aims to illuminate the nature of the objects of inquiry (consultancy practice, organizations and IT) rather than present some formal hypothesis for which subsequent empirical evidence is marshalled as ‘proof’. Thus, as with much qualitative and ethnographic research, we did not begin the research with a clearly articulated hypothesis to be tested on our data. Rather, our aim was to understand how particular constructions of IT systems were initiated, contested and authenticated; the flexibility of the boundary between the ‘technical’ and the ‘social’; and the role of IT consultancy practice in these matters. The later case study serves as an exemplar of such processes and constituted a crucial aspect of the research, serving to generate novel insights into the consultancy practices involved.

Three different research methods were adopted. First, documentary sources, both publicity material generated by consultants and confidential reports compiled by consultants for individual clients, were examined. Whilst the former could be interpreted as merely a public relations or marketing exercise, they also have embedded within them particular understandings of what it means to be a *bona fide* consultant, and the right way to design and implement an IT system. Second, in addition to documentary sources, access was negotiated to consultants’ client organizations, and we report on one case in this paper as an exemplar of the theoretical and epistemological issues we wish to raise.

Third, in order to reduce the problems of rationalization endemic to interviews as a research instrument, we also spent nine months engaged in non-participant observation of the development and implementation of an information system within an NHS hospital. This enabled us to listen to and observe at first hand the interactions between the individuals we had interviewed and who were most closely involved in the development and implementation of the IT system. One of the main venues for this was the project support meetings which were held fortnightly at the hospital. At these meetings participants not only reported on the progress of their particular area of responsibility, but also raised issues which required attention. This gave us the opportunity to assess the types of arguments which were brought to bear on such issues: that is, whether they were portrayed as organizational (i.e. socio-political) or technical problems, and the strategies deployed by the actors in seeking to achieve particular outcomes. Moreover, apart from the formal project support meetings which we attended, we were also able to observe ‘pre-meetings’ of the consultants and suppliers of hardware and software. At these meetings consultants and suppliers discussed the tactics they should adopt in respect of particular problems in order to achieve specific outcomes – that is, whether they should be seen as technical (and thus the responsibility of the consultants and/or suppliers) or organizational (a matter of changed organizational practice) – within the formal project support meetings.
We were therefore able to observe the struggles over the construction of the socio-technical boundary.

Finally, given the sensitivity of the research for consultants' competitors and in order to secure access to information which would generate a deeper level of understanding of consultancy practice than has hitherto been the case, access for the research was granted on the grounds that no specific organization nor individual would be identified in any subsequent publications, and we therefore abide by this agreement.

In the next section we begin by examining some of the specific discursive resources deployed by consultants in promoting an identity as sources of expert knowledge on IT and organizations; in particular we will refer to notions of independence (from suppliers of hardware/software), IT strategy, skills in the area of IT and organizations, and the ability to discover and solve problems. Following this we will present a case study of the development and implementation of an NHS hospital information system.

**IT CONSULTANTS AS OBLIGATORY PASSAGE POINTS**

At one level the matter of consultants' identity could be regarded as a simple marketing exercise; but at a deeper level, we are interested here in the specific discursive resources and the implied characteristics of IT which are assumed and appealed to within a consultancy encounter. Thus for a number of reasons the task involved here differs from that required to understand the marketing of a product. First, although consultants have to sell their services, this requires a redefinition of clients as well as a definition of themselves; in other words, they do not so much target themselves at a particular niche as seek to create a niche and persuade clients that they are within it. Second, consultants' identity has to be maintained throughout a consultancy engagement, at crucial top-level meetings as well as during the nitty-gritty aspects of day-to-day project management. Third, given our epistemological starting point, we seek to understand how, in order to sell themselves as experts, consultants reproduce the dualism between the technical and the social, between the politics and the technicalities of systems development. We view this dichotomy as a central pillar of the identity of consultants and as such an integral part of the process by which clients' problems are constituted and tackled.

We regard management consultants in the area of IT as intermediaries: they interpose themselves between IT and clients, or between IT suppliers and clients, in effect seeking to speak for technology. Put another way, they seek to portray themselves as obligatory passage points (Callon, 1986). Thus if clients want advice on the selection of IT systems, on developing IT strategies, or perhaps developing and implementing an information system, it must be seen that the routes to such objectives require the services of consultants. For example, if an organization wants to know which financial ledger or payroll system to buy from the range offered by competing suppliers, it is a common practice to hire consultants to advise on the decision. Accordingly, consultants claim to be independent of suppliers of hardware and software.
We also have regular contact with all major suppliers . . . we are, however, completely independent of hardware and software suppliers, so that you can be sure of unbiased advice. (Touche Ross, *Computer Security*, p. 7)

With our assistance, you will be able to make an objective choice of supplier, supported by a documented and logical analysis, showing that the risks of the decision have been minimised. (KPMG Peat Marwick McLintock, *Services in Implementing Large Systems*, p. 4)

Consultants draw on their professional reputation to argue that their interests are those of the organization — that is, that they have nothing to gain from advocating a system which will cost more and possibly achieve less from the organization’s perspective. In interviews, consultants stress that their own interests in terms of securing further work are best served by working closely with the user organization in developing a system which is tailored to the specific needs of that organization — in other words, an equivalence is posited between their own and the client’s interests. Put another way, the problem of choosing a particular functional system is translated into a problem of choosing the best expert advice.

In order to be seen as a go-between between clients and technology (or suppliers of technology), and to maintain this identity, consultants must mobilize various arguments, reports and techniques (such as project management or systems analysis methodologies), or specific ideas or ways of thinking and speaking about the world of organizations (e.g. excellence or total quality management), business and IT, which help construct and reproduce the relationship between the indispensable and the dependent. Thus when referring to the intermediary nature of consultancy practice we do so in two senses: first to denote that consultants wish to be perceived as independent experts, as neutral conduits between technology and organizations; and second, we use the term intermediary to refer to all the resources which are mobilized by consultants during their engagement by a client. Again, this implies that consultancy practice in the area of IT is inherently political; indeed, one could argue that the practice of consultants is most political; when power is exercised such that clients confer in the opinion that technical questions only have been addressed.

The consultancy process takes place within a context of perceptions, identities, accounts and representations. A consultant’s advice on a particular matter, as well as its perceived legitimacy, depends on a mutual understanding between consultant and client. This is not something which is given; it depends on their discursively negotiated identities, normative assertions about what should be done, who significant others are, what they stand for or represent, and, crucially, what is technical and what is social. For example, currently, perhaps the single most important aspect of consultancy practice centres on the notion of strategy, which has become a key element of discourse on organizations and IT (for a review of the different perspectives on strategy, see Knights and Morgan, 1991). Here the concept of IT strategy is seen as a resource which serves as a symbolic means of establishing identities: those expert in devising strategies and those organizations in need of strategic advice. Among the arguments about the need for an IT strategy, consultants are able to point to, if not by name, organizations they have been engaged with previously who have implemented systems without
first formulating a proper IT strategy and, needless to say, the high cost of rectifying such behaviour. There is the suggestion that increasing national and international competition between organizations will no longer allow managers to use IT merely to solve immediate problems, but that IT can help to make organizational goals achievable within the larger and increasingly sophisticated markets that are emerging. As one consultant put it:

There's still a long way to go, we still have to educate clients about IT, move them away from just trying to automate things towards planning, thinking ahead, matching their IT to their business objectives. It's not easy getting people to change their habits, but if managers don't see what's needed in the future, well now really, they could be heading for trouble, 'cause others will see it, have seen it. (emphasis added)

Thus the interrelationship between consultants and clients is mediated by knowledge concerning the use of IT in other organizations, which are often competitors of the clients and for whom the consultant may well have carried out similar work. These other organizations are significant actors which are often mobilized discursively in order to establish the context within which work for a client is carried out. They are used by consultants as exemplars of the value of having an IT system, and the latter are able to list the advantages that particular organizations have gained from the correct design and implementation of such systems. Moreover, and on a more subtle point, other organizations are also constituted by consultants as part of the client organization's present problem, e.g. consultants may instil or reinforce a perceived need by the client organization to increase its effectiveness in relation to competitors whose IT systems are alleged or perceived to be giving them an edge.

Indeed, during the course of our research we gained access to a number of highly confidential reports which had been prepared by management consultants to inform clients on matters of IT strategy. Given a reading of these it would seem that in certain situations consultants are hired precisely because they have undertaken work for a client's competitors. For example, a client might wish to know whether or not their IT strategy is broadly behind, in line with, or ahead of other comparable organizations within their sector. Thus the upshot of referring to other organizations is to 'discipline' the client - that is, in the sense of establishing the grounds for 'correct' practice a propos of IT.

Other organizations are therefore used by consultants in both a positive and a negative sense - to encourage and to discipline: positively, by persuading clients of what can be achieved by using an IT system (with the consultants' instrumental role in this achievement obviously being highlighted); and negatively, in terms of the client organization's need to increase effectiveness in the light of competitors' achievements. Consultants therefore attempt to use a client organization's competitors as a means both to construct problems and to offer solutions.

Another prominent aspect of the identity of the consultants followed in our research is that they claim to have skills in both information technology and organizations. IT skills are relatively scarce and costly, but expertise in organizations and IT is even rarer. The quest for expertise in developing IT systems
is based partly on the recognition that the successful implementation of an IT system is not merely a technical problem which can be left to the skills of hardware and software suppliers, or even traditional data processing departments, but also requires the knowledge and skills of business and organizational behaviour specialists.\[^{13}\] As another consultant expressed it: ‘What management consultants do is, and intermediaries is quite a good word, they are people who understand not only the business, but also the technology and they can translate as they go along.’ This view of consultants further reinforces their attempts to differentiate themselves from suppliers of hardware and software.

However, the fact that the development and implementation of IT systems is now conducted by a number of different types of organizations — including producers and suppliers of software and hardware — has led to a blurring of the nature of consultancy work. On the one hand, hardware suppliers have moved into the consultancy area in order to influence purchasing decisions; on the other, some software houses have also moved into consultancy practice. In response to the threat posed by the lack of definition in the concept of consultancy, consultants seek to secure the following opposition of identities: computer companies equal suppliers of equipment or software, consultants equal suppliers of objective business advice. To differentiate themselves from competitors such as suppliers of hardware and software is an attempt to weaken the ties between those other organizations and clients. Hence, consultants maintain that suppliers of hardware and software still have as their prime motivating factor the sale of their own products: ‘Basically they [manufacturers] are selling a direct product whereas we are selling a service which at the end of the day is basically advice. . . . [In developing an IT system] one should always be looking at the business needs . . . ’ Thus their expertise does not reduce to a blanket exhortation of the use of IT; rather, they claim that the correct use of computers requires expert knowledge. As another consultant argued:

We hardly ever come across an organisation who doesn’t need an IT system because most companies don’t have the basic information they need to run a business so they are bound to need something. Often (in response to the question, do we need to computerise?) the answer is yes, computers can help you, but not in the way you thought. [emphasis added]

In this example the typical client is depicted as already being convinced of the need for IT but lacking in an understanding of how IT and business must be fitted together – thus opening up a space for intervention on the part of the consultants who claim expertise in such matters.

The legitimacy of such advice rests on a fourth key feature of the identity of management consultants — namely, the claim to tackle ‘real’ problems. Consultants in the IT area project a view of themselves as experts\[^{14}\] who discover and diagnose problems (rather than construct them). This is clearly reflected in the definition of management consulting advanced by the UK Institute of Management Consultants (1974):

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The service provided by an independent and qualified person or persons in identifying and investigating problems concerned with policy, organisation, procedures and methods; recommending appropriate action and helping to implement these recommendations.

In this respect we argue that management consultants portray themselves as neutral conduits, faithfully reporting what they discover; in other words, as intermediaries between problems and clients. The position on the status of problems offered in consultants’ own publicity material is unequivocal: the skill of management consultancy is seen as the ability first to identify the real problem, and secondly to find the appropriate solution: ‘We are experienced in helping clients identify the underlying causes of operations management problems’ (KPMG Peat Marwick McLintock, Operations Management, p. 18). The question concerning the ontological commitments embedded in their view of organizational problems obviously begs some very fundamental and difficult philosophical issues, and it is worth making the point that a recognition of the difficulties inherent in the status of organizational problems is all but absent from the literature on management consultants. This has effectively prevented any serious discussion of their role in defining such problems.

The position adopted here – which will be illustrated by empirical evidence in the following case study – is that problems have no independent existence; we are not interested in how problems are ‘discovered’, but rather in how they are constituted. Indeed, the very notion of organizational problems presupposes an expert (or therapist) who can solve (or help to solve) them. Hence, in parallel with other practices centred on the deployment of expert knowledge, consultants are engaged in a process whereby organizations are constituted as objects with problems requiring treatment. In parallel with our earlier stated epistemological position on technology, it is our contention that we do not have direct access to problems so much as knowledge that problems exist (or not), and we should therefore regard them as social constructions. More specifically, the accepted view of a problem is not a simple reflection of some underlying objective ‘essence’, but rather is the upshot of a conflict between competing voices (that is, intermediaries, including consultants and certain academics) who claim to know what the problem really is. Such claims may be read as a form of ‘ontological gerrymandering’ operationalized through a strategy of ‘selective relativism’ (Woolgar and Pawluch, 1985a). That is, one definitional claim is undermined by showing the connection between it and various interests, while at the same time an alternative definitional claim – for example, whether a problem is technical or organizational – is shrouded by ostensibly irrevocable ontological commitments. Thus in any specific organizational context consultants’ claims to diagnose the real problem (ontologically secure) depends upon discursive moves which undermine the objectivity (and thus ontological security) of competing diagnoses while preventing any critical scrutiny of their own. In fact we have already seen examples of this in our earlier discussion of consultants’ identity. For instance, selective relativism was used by consultants to undermine the advice of equipment suppliers – knowledge is constrained by suppliers’ interests in selling hardware and software – while anchoring their own advice in the supposed external reality of technology as well as the ‘realities’ of the world of business.
So far our argument has concentrated on establishing the importance of discursive resources – principally oriented towards the identity of consultants and their clients – and we have drawn upon interviews with consultants as well as documentary materials to illustrate the usefulness of the underlying perspective. Our next step is to provide a case study of consultancy practice in action within the context of developing and implementing a hospital information system in the NHS. On a word of caution, we must stress that we do not seek to reveal any gaps between theory and practice, between the glossy publicity material and actual work on the ground. By definition, such a gap must exist, and there is nothing unique in consultancy practice in this regard: any representation (on paper) of an organizational practice (such as consultancy) can never capture that practice. Indeed, we see the understanding or identity of consultants embodied in documentary sources not as a benchmark against which we should judge them but as a condition of consultancy practice in action.

MANAGEMENT CONSULTANTS IN THE NHS: A CASE STUDY

Background
Amongst the benefits of IT commonly cited by consultants in order to recruit potential clients is the notion that IT can help managers by increasing corporate effectiveness, achieving cost reductions, or the creation of a competitive advantage. While these sorts of claims are well known in the private sector, the same cannot be said of public sector organizations such as the NHS. Some have argued that this apparent lag between the NHS and the private sector is due to the fact that until very recently organizations within the NHS have not had to face commercial pressures – a state of affairs which changed in April 1991 when the government’s ‘NHS Reforms’ inaugurated an internal market. These changes in the NHS have provided an opportunity for consultants:

Many of the new concepts and skills the NHS needs to operate in the internal market will, unsurprisingly, be alien to the organisation. Naturally such a steep learning curve presents ample scope for management consultants. . . . Transforming the mentality of NHS managers from public sector thinking to private sector, provides management consultants with their greatest challenge and the biggest source of work . . . ’ (Feisal, 1991).

Such developments present us with some interesting aspects in so far as concepts, knowledge and notions of good practice in the private sector are transposed into the world of public organizations. For example, in the public sector IT is now seen as a means of enhancing control through its alleged ability to record and monitor the use of resources and costs. In particular this is to be found as a central theme of the Resource Management Initiative,[16] which aims to connect medical activity (treatments, operations, drugs administered etc.) with costs. The implications (and opportunities) represented by this initiative were quickly taken up by management consultants. As the information material of one of the major UK consultancy firms puts it: ‘Costs by service grouping (firm) and disease treatment classification (product) will be produced for improving planning and
resource allocation by general managers and clinicians' (KPMG Peat Marwick McLintock, *Services in Health Care: Resource Management*). Here we see that the concepts of medical speciality and treatment are construed in terms of 'firm' and 'product'. This is more than simply a matter of labelling; for a model of factory production is used to reinterpret hospital practices, with the activities of different groups (e.g. gynaecologists, surgeons or paediatricians) seen as product lines. Rather than interchangeable labels, what we have here is a matter of translation: equivalences are being drawn between disparate practices. The problem of costing treatments according to medical specialities is seen as equivalent to costing the products of different firms; the former becomes translated in terms of the latter. Moreover, it is important to appreciate the crucial role allocated to information and therefore information systems in this situation. The concept of information provides a seemingly neutral medium in which the move from one domain to the other, from the private sector to the public (and vice versa) is apparently seamless. What is of further importance in these examples of the transfer of concepts from the commercial world to the public sector is that they imply a reconceptualization of organizational practices. For example, hospitals might no longer treat patients solely in order to improve the state of their health; they might also make a 'profit'. The ethos of clinical freedom may no longer be just a question of giving an individual patient the best treatment according to a doctor's judgement, but implies making a medical decision while taking into consideration the resources available and those required for a particular treatment; treatments are to have a monetary cost as well as a medical outcome. These changes in the NHS are largely a result of government policies, but management consultants represent important purveyors of these ideas; they are intermediaries between technology and organizations, and between commercial and public sector management practice. Again, as intermediaries they are not neutral conduits, but important actors, whose role is constitutive of some of the changes taking place.

But while no one would disagree that the role of management consultants in the NHS context has a political dimension, a question mark remains as to the status of their 'technical' work. Put another way, given that the overarching objectives for an information system may be read as political, what of its technical content? Again, in the following case study we seek to show that consultants' socio-political and technical skills are inextricably intertwined within the development of IT systems.

THE MANEX HOSPITAL SYSTEM

While consultants argue for the general benefits which can be realized through the proper deployment of IT, they are often involved in developing or selling particular information systems or pieces of software. As part of our research,[19] we followed a Resource Management information systems development project over a period of nine months in which a firm of IT consultants (MANEX)[20] were awarded a contract to develop and install an appropriate information system for Resource Management. Amid competition from other suppliers of Resource Management systems, the MANEX consultants achieved an identity as...
obligatory passage points. Put very simply and crudely, the regional and district hospital authorities were persuaded that if they wanted to solve their problem — namely, to achieve the implementation of an information system in accordance with the Resource Management Initiative subject to constraints imposed at both regional and local levels — then they should do this via MANEX. One of the important factors which figured in MANEX's persuasive manoeuvres was the fact that they were already involved in the implementation of Resource Management at other sites. In other words, one of their selling points was that not only did they have experience of Resource Management, but they had a product as well.

However, the fact that MANEX became an obligatory passage point, a necessary detour on the way to the implementation of Resource Management, was not without its problems: their identity worked for them in securing the contract but paradoxically it also worked against them in respect of certain aspects of the ensuing development and implementation work. For example, one phase of implementation required that MANEX ascertain from the doctors both the statistical information they required and the report format in which such information should be generated by the information system. However, the doctors were at a loss to respond because they felt they lacked the necessary knowledge of statistical techniques and the technical knowledge of what the IT system was capable of generating. As one doctor put it, 'I suppose a lot of us aren't really sure what we're going to get out of it at the end of the day. I think that's true of a number of new developments in the Health Service. So in many ways it's hard to know exactly what data you're going to try and get.' This created a dilemma for MANEX: having constructed their identity partly in terms of technical skills — including IT, handling information and statistics, and how to connect these to medical practice — they could hardly turn round and step back from it. To try and resolve the issue they offered the doctors copies of the reports adopted by another hospital where the consultants had also undertaken work.

It is important to point out that the MANEX product differed in a number of important ways from, say, a physical product such as a mainframe computer or even a standard off-the-shelf software product such as a data base management system. It differed because it represented a particular implementation of Resource Management which would have to be customized to the new site (see also Bloomfield et al., 1992). Moreover, the staff at the hospital had little independent knowledge of the product at the other sites. Rather, their knowledge was largely mediated by the consultants from MANEX. The fact that the product existed at other sites was mobilized by MANEX as a symbolic resource — at the outset to help secure the contract, and subsequently to legitimate the identity of MANEX as experts appropriate to solve the various problems which punctuated the route towards implementation.

Because MANEX's product represented a particular attempt at the implementation of Resource Management, there was always a potential gap between its identity and the presumed identity of a 'real' Resource Management system. For example, after the implementation had already been under way for some six months, at a point when the system was shortly due to go live, senior figures in the project team still thought it fit to question what Resource Management was all about during project meetings. It 'depends on your point of view', said one;
while the hospital’s project director argued that it ‘depends who you talk to’. One consequence of this ongoing lack of stability in the identity of the product—that is, the emerging information system—was that alternative visions of what the system should do began to emerge; similarly, when problems arose there was a recurrent question of whether these were technical or organizational. In fact, the issue of system identity and the proper arrangement of organizational practices were two sides of the same coin, as will be illustrated in the following examples.

(A) Conflicts Over System Identity

Of the problems associated with the identity of the information system, one in particular proved especially troublesome as far as MANEX were concerned because it threatened their own identity as an obligatory passage point, as actors who had the right solution. The system had been designed to keep a log of all laboratory tests ordered for a given patient so that these could be included in the total cost of treatment. However, some of the doctors argued that they would like a facility whereby they could obtain the results of these tests on-line from a terminal on a hospital ward. As one doctor opined:

I’ll tell you one thing we do want, something that we would really like out of our information system, is a real time system. That’s something that we said form the outset. We’d all like instant lab reports coming back to the ward, basically at your fingertips.

But as it had been conceived up to that point by MANEX, the system did not cater for such functionality; they argued that the system specification in respect of its data-handling capacity simply was not big enough, and a suitably sized system would cost a lot more money. A struggle then ensued over the identity of the MANEX system; was it an embodiment of Resource Management or not; had the system been properly sized or not; would the system be useful to doctors or not? The upshot of the dispute was a consolidation of the original identity of the MANEX system; in particular, the doctors were persuaded that what they were really asking for was an integrated hospital information system, an order-communications system which would cost a considerable sum more and, moreover, was part of future rather than current plans. Thus the doctors gave up their demand for real time results in return for a promise of future capability: ‘But, hopefully as we’re told, there is a commitment to work towards the real time system which I think will offer very positive benefits to us.’ In other words, the organizational development of IT had to be taken carefully, a step at a time; one shouldn’t run before one can walk; the future held out bright prospects, but in the meantime they had to proceed with caution. Within this struggle over the identity of the system it is interesting to note that the hospital’s project director took the side of MANEX. This proved an important alliance on the issue because the former had some medical experience and therefore had credibility in the eyes of the doctors. Indeed, this was one of the reasons why this particular person had been appointed to the position of project director. As another doctor described the meetings run by the project director: ‘Every week he lays on us a new fact about the thing.’

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Thus the management consultants achieved a relative stability in the equivalence they had drawn all along between their product and the Resource Management Initiative: the problem to be tackled by Resource Management was the problem around which the product had been developed. Further, the problem which the doctors wanted tackled – speedy access to test results – was equated not with Resource Management but with a future form of hospital information system. The functionality and sizing of the MANEX product were seen to be correct all along; it was the doctors who were running ahead of themselves. This outcome was not a foregone conclusion; to achieve it the consultants had to muster all their political/technical resources to preserve the identity of the product and thus their own identity as obligatory passage points. They consequently engaged in much lobbying before the crucial project meetings in order to ensure that those whom they regarded as key hospital staff took their side, or rather, opined the ‘correct’ view from a seemingly independent position. Indeed, at one meeting which we attended between the management consultants and the hardware suppliers the sole purpose was to set out the strategy whereby agreement amongst those hospital staff might be secured prior to the following project meeting. In particular, attention was focused on the hospital’s computer services manager: ‘Bind John’ in and start using him, I think it’s the only way we can drive it forward.’ In interview, the individual concerned stressed the unequal nature of the relationship with MANEX:

On the IT side, a lot of my work is very close to MANEX . . . and we look to them to tell us about what to do. . . . MANEX are writing the software, they have complete control of it, and I sometimes wonder whether they are telling us everything about the system. . . . A lot of people have never seen a case-mix system before, so we don’t know what to expect. (Hospital Computer Services Manager)

Thus a dependency on MANEX regarding ‘technical’ matters was acknowledged, though not without some reservation. The upshot was that MANEX had chosen an individual who had technical credibility amongst the rest of the hospital staff but who deferred to them (MANEX), and therefore became an important ally, on matters regarding the new information system.

The sort of Machiavellian moves reported here are not surprising and they are certainly not confined to consultancy practice; indeed, they are the stuff of organizational life. But what is crucial here is that the outcome represented a particular view of what was technical. What the consultants had achieved was an agreement that the differences between their Resource Management system and an order-communications system were technical ones. That is, they were not rooted in some partial or incorrect point of view concerning Resource Management and therefore non-technical differences due to MANEX’s failings. However, this agreement was grounded in the socio-political skills deployed in securing the ‘technical’ arguments. The general point here is that every important ‘technical’ aspect of engineering the implementation of the information system depended crucially on the simultaneous ‘political’ or ‘social’ engineering of various actors – including hospital staff, hardware suppliers, and other third-party suppliers of software etc. [24]
We have seen that the identity of the information system was the object of ongoing strategems. On some occasions the consolidation of that identity had implications in terms of organizational practice: put another way, when questions were raised about the technology the 'problem' was identified in the organization.

One example concerning organizational practices centred on the attempt to automate certain aspects of patient administration. The information system was to be used to produce the letters which hospitals routinely send to a patient's general practitioner when someone is discharged. To automate these letters required a standardization of format because they could contain only those items of data which were already on the information system's database and were therefore coded. However, some doctors objected to the rigidity of this arrangement because they wanted to be able to include non-standard comments. In response one of the suggestions proposed by MANEX was that the doctors would have to come up with a way of coding such items so that they could be entered into the information system. Hence again we see a translation in operation: the problem as seen by the doctors — the rigidity of the information system — was translated in terms of the lack of standardization inherent in doctors' practice vis-à-vis the discharge letters. What could be seen as a technical problem was reconceptualized as an organizational one — a problem of organizational inefficiency due to the non-standardization of an informational practice on the part of the doctors.

A second example arose in the area of coding. The new information system required large amounts of data to be input, such as the names and addresses of patients, their age, sex and date of birth, the name of their general practitioner etc. Coding was proceeding slowly and there was also a constant problem of ensuring data integrity. But if the system was going to be used for planning resource utilization it would need sufficient historical material in order to make future projections possible. When this was discussed at one of the project team meetings MANEX took the position that either the data input staff should be made to work harder or else more staff should be employed. The latter was not really seen as a possibility because of the lack of funds. While, on the face of it, the dilemma here seems rather straightforward, a little further reflection reveals that again what we have in this case is not the discovery of a problem but a translation. The difficulty of slow data input was translated in terms of a problem of organization/discipline — either more people should be set to the job or those currently engaged on it should be made to work harder — while no mention was made of the possibility that the data input procedures themselves might be changed; that maybe a change in coding practices qua coding could pave the way for quicker, more accurate data input with the same staff. Whether this was a realistic possibility is a moot point; what matters is that the translation mobilized by MANEX prevented the discussion of any such alternative possibilities; after all, MANEX were seen as the technical experts. In other words, there was nothing wrong with the technology (the way that the particular information system required data input); rather, the fault lay with organizational practice.

Finally, a third example concerning organizational practice took the form of a general diagnosis of management in the NHS; this emerged against the background of a threat to the project timetable and a cost overrun. During an inter-
view after a rather frosty project meeting, one of the MANEX consultants remarked on the recurrent difficulty of getting things done in the hospital. For instance, the consultant argued that each decision was preceded by a meeting (in accordance with the collegiate norms of the comparatively non-hierarchical nature of the NHS), when, in the consultant's judgement, really all that was required was a ten-minute conversation between one or two people. This latter practice was suggested as a measure of efficiency common to both the consultant's own organization and the experience of other private sector organizations, where hierarchical line management imposed responsibilities on individuals who could be readily called to account. Measuring the performance of the particular NHS organization, the consultant defined a problem - that of inefficient management - to be tackled by a solution based on a notion of good management practice derived from the private sector. Put another way, two identities were brought into play, efficient and inefficient management. Moreover, the consultant's diagnosis and prescription were a further reinforcement of the technical/non-technical boundary. The obstacles in the way of getting the information system up and running were not technical; neither were they the result of any inadequacies in the techniques of project management which the consultants used; rather, they were seen as rooted in an inherent non-rationality of the organization. Confounded by organizational politics - for example, not upsetting people or deferring too much to doctors - the project timetable was under constant threat.

DISCUSSION

In this paper we have addressed the mediating role of management consultants in the development of IT in organizations; we believe that this role is an important one, yet also under-researched. Our account of the practices of consultancy in this area has sought to avoid the simplistic notions that management consultants are charlatans or that they simply tell organizations what they already know. Indeed, consultants themselves articulate a similar notion - that of inferior or 'cowboy' consultancy; this enables any particular consultant to proclaim an identity of expertise for themselves. However, any account of a social group must go beyond the concepts within the discourse employed by the group itself; their talk must be a starting point for interpretation and not an end point (Mulkay et al., 1983). Thus the sceptical view of consultancy seeks to undermine it by recourse to the very notions which consultants themselves use to try and legitimate their individual practices, and in so doing accounts based on such a view offer little understanding of consultants' role as mediators between organizations and IT.

Seeking to open up a more substantive discussion on consultancy practice, we have tried to develop a picture of the stratagems by which consultants seek to become obligatory passage points in relation to the problems of IT-user organizations. We have argued that consultants draw upon various discursive resources to establish their identity, including objectivity, independence from suppliers, skills in both business and IT and in the area of strategy. What is particular about the consultants we have studied compared to management consultants

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more generally is that, while they claim to have a similar knowledge about good business and management practice, they have the added advantage of appearing to speak for technology. Unlike other recent trends in management — such as quality, excellence, leadership or empowerment — the notion of integrating organizations and IT strategically may be seen to have a more rational edge in so far as technology is seen as an objective external referent. Thus the discursive reaffirmation of the socio-technical boundary is much more than a means of apportioning blame — for example, ‘the IT system is all right but management is lacking'; it is a crucial feature of an IT consultant’s claim to expertise.

We have discussed consultants’ identity as portrayed in interviews and documentary materials as well as offering a picture of their practice in action. But again, to reiterate a point made earlier, we consider these different sources of evidence to be mutually supportive rather than contradictory. We have not sought to reveal differences between stated best practice and what happens on the ground: the understanding and dichotomies pertaining to IT and organizations articulated in the publicity materials, interviews and confidential reports were reproduced through the arguments and struggles evident in the client engagement reported in our case study.

Discursively constituted identities — whether these refer to consultants, clients or particular information systems — are not fixed but must be constantly reinforced; they are stable only so long as the interlocking network of implicit and explicit agreements which supports them hold together; they are not settled once and for all but are the object of ongoing discursive moves. This is why we have argued that consultancy practice necessarily entails the exercise of power, in the endeavour to construct others’ identities and interests, and through the exclusion of rival views of problems and solutions. The deployment of discursive resources does not stop when a contract is awarded. Rather, they are a continuous part of consultancy practice in the detail of day-to-day exchanges and negotiations which characterize systems development and implementation throughout the life of a project. This is why there can be no presumed separation between technical skills and political skills, and no ranking between the two in terms of their importance for consultancy practice and the development of IT in user organizations.

Thus we have not intended to suggest that consultants are in any way omnipotent or that their claims are uncontested; instead, we have sought to locate their practice within an arena of conflict over who has the legitimate voice to speak of IT and organizations and indicated how they endeavour to overcome resistance to their prescriptions. For example, again our case study site showed how the identity of an information system can become blurred under the pressure of arguments over its objectives and functional capabilities. In turn, threats to the identity of a system ‘sold’ by consultants can imperil their own identity and position of indispensability. Even though it was unlikely that MANEX could ever have been removed from the project — too many resources had already been committed, and much of the hardware and software was already in place — there was a potential knock-on effect. For if MANEX wanted to win any further contracts with other hospitals then they needed a ‘successful’ implementation. They could not do as they liked. Consultancy practice and the stratagems which are part of it represent exercises of power. But this power is not exercised by consultants over clients; rather, consultants too are subjects of the
discourse and practice of consultancy. The treadmill of project management - with its injunction to deliver on time and within budget, which can become an end in itself and thereby displace the original objectives of an IT system - has disciplinary effects on both management consultants and clients.

Finally, the analysis of consultancy practice presented here also affords us with some more general insights into the development and implementation of information systems. First, in any context where, as is typically the case, different groups have differential access to discursive resources, one can expect to find the deployment of strategems for establishing agreement about what the ‘facts’ of the situation are: what problem is to be addressed, whether that problem is technical or organizational, and what sort of solution is appropriate. Whatever a problem is defined to be, this is determined neither by technology nor by the organization; it is an identity or understanding which is constituted during the course of the sorts of struggles depicted in this paper.

Second, the management of the perennial difficulties which plague the area of systems development are unlikely to be solved by either the search for more formal techniques or through more detailed methodologies. Both presume that better project management can be achieved by controlling (as in socio-technical and participative approaches) or distancing (as in business process re-engineering) organizational politics. The intrusion of politics, or its incorrect management during systems development, is portrayed as a source of failure in previous approaches, while the search for alternatives has to deny its own political nature. However, the argument developed here is that technical skills cannot be divorced from socio-political skills, no matter how sophisticated the techniques involved might be. Developing IT in organizations is by definition a constitutively political process – ontological gerrymandering is a condition for claims to expertise.

NOTES

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[1] Thus it should be noted that as employed here the concept of identity is not synonymous either with personal identity or the existential identity of the subject. Instead it follows the usage found within semiotics; it is seen as the upshot or focus of discursive moves through which the matter of defining who or what shall be deemed to speak for, or represent the different actors in a network, takes place (Callon, 1986).

[2] Other reasons which have been suggested for the growth of consultancy include attempts by organizations to rationalize and economize on their costs, and government sponsorship of the use of consultancy services through the DTI Enterprise Initiative (see also Jackall, 1989; Financial Times, 1986; Sturdy et al., 1989; The Economist, 1988; Waller, 1990). The increase in public sector use of consultants, partly spurred by ‘the Thatcher Government’s privatisation programme and the move towards “professional” management in the public sector’ (Waller, 1990, p. 13), can
be seen in the NHS, where many management consultants have been involved in major IT investments.

[3] For example, figures from the MCA show that fees earned by consultancy firms from IT projects have grown significantly, from 30 per cent in 1989 to 41 per cent in 1990 (Williams, 1991), and Abbott estimates that 'the value of the British market for IT consultancy in 1990 . . . was worth some £247.8m' (1991, p. 22). Abbott also points out that this figure is an underestimation because it excludes 'IT fee income for the large number of small consultancy firms' (ibid.). Similarly, Waller (1990, p. 13) draws upon a report from Anderson Consulting which stated that services in IT were 'worth £1.8bn in fees in 1989, expected to grow to £3.4bn in 1992'.

[4] In Jackall's (1989) study of corporate management the following motives for hiring consultants are noted:

[to] legitimate already desired unpleasant changes, such as reorganizations; throw rival networks of executives off the track of one's real strategy by diverting resources to marginal programs; undercut consultants employed by other executive groups by establishing what might be called counterplausibility; or advance . . . a personal or organizational image of being up-to-date, with-it, and avant-garde. (Jackall, 1989, p. 144).

While we would readily accept each of these possibilities, it is the latter – namely, the symbolic resources which consultants put at the disposal of managers – which most closely connects to the analysis developed here.

[5] Including Bennis (1966, 1969); McLennan (1989); Schein (1969); TisdaU (1982). However, this literature suffers from a number of important drawbacks as regards the theorization both of problems and of the role of IT in organizational change. In particular, problems are granted an ontological status rather than being seen as social constructions or social accomplishments, while IT is treated rather as a technical black box which impacts on organizations (for a critique of this work, see Bloomfield and Best, 1992).

[6] In the labour process debate this distinction is reproduced in terms of the distinction between the social relations of production and the technical relations of production.


[8] Given our epistemological position, we could suggest that it is up to those who subscribe (unwittingly or not) to the dualism represented by the supposed separation between socio-political and technical skills to provide an argument or examples of how ‘independent’ or ‘neutral’ knowledge of technological objects is possible. How can one know technology in itself?

[9] Thirty semi-structured in-depth interviews were conducted with consultants (both business and IT specialists), managers, in-house IT specialists, NHS clinicians and clerical staff. Interviews were on average of one hour's duration; they were tape-recorded and transcribed verbatim.

[10] One could also say that management consultants in IT are 'heterogeneous engineers' (Law, 1987) – that is, they seek to 'engineer' both people and machines in the course of choosing, developing or implementing IT systems; and one of the prominent features of their 'engineering' practice is the mobilization of identities referred to earlier.


[12] Indeed, in 1984 a DTI-sponsored report on IT which was carried out by a firm of management consultants stated: 'Few companies attempt to align their business and IT strategies and most relegate IT to providing a reactive service for middle man-
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agement’ (Kearney: Management Consultants, 1984, p. 1). The report goes on to stress the urgency of the problem which the lack of linkage between IT strategy and business strategy represented – particularly in light of the growing competition with companies in Europe. See also ICL (1990); Price Waterhouse (1991).

[13] It is worth noting, however, that the greater proportion of IT specialists are part of the staff of user organizations – that is, they are in-house (Friedman, 1990). However, the point about management consultants specializing in IT is that they often sell expertise in both IT and organizational management. Moreover, organizations sometimes employ outside consultants precisely because the ‘objectivity’ or competence of an in-house IT department may be deemed suspect etc.

[14] In this regard they differ from those general consultants who portray themselves as therapists, or facilitators helping clients to solve problems.


[16] In this regard we differ from Checkland (1982) and soft systems methodology. Specifically, Checkland views the soft systems consultant as a therapist and focuses on messes (following Ackoff) rather than pre-given problems. The methodology institutes a process of organizational learning in order that a consensus might emerge on what the problem may be taken to be. However, from our position any such consensus must be viewed as an exercise of power, and so soft systems methodology cannot be regarded as some neutral social technology.

[17] Because they work with technology, IT consultants have an advantage over their colleagues in general consultancy in so far as the widely shared assumption about the externality of technology provides a means of buttressing their claims.

[18] Resource Management was launched in the document HN 86(34) (DHSS, 1986).


[20] A name we have adopted to preserve confidentiality.

[21] This is of course a necessary simplification; they had become obligatory passage points, but the details of the moves involved will not be pursued here for to do so would undermine our commitment to confidentiality. One of the constraints imposed by the hospital authorities was that the information system should be useful to doctors and not just an exercise in financial accounting.

[22] A consultant’s position of indispensability is context-dependent; the people responsible for awarding a contract to a consultant may well be different from those who have to work with them on the ensuing project. At our case study hospital most of the staff charged with working alongside the consultants from MANEX had little direct influence on the award of the contract. For them – some of whom had been appointed out of project funds – MANEX was a necessary detour, a condition of the project’s success: the consultants had been chosen and the path to the implementation of a Resource Management system had to be routed via them.


[24] For example, the MANEX product had to be interconnected to several so-called feeder systems in other hospital departments such as laboratories and theatres. The hardware and software for these systems were supplied by third parties.

[25] For a fuller discussion of this matter, see Bloomfield and Best (1992).

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