# ORGANISATIONS, IDENTITIES AND TECHNOLOGIES IN CHANGE MANAGEMENT:

## THE RISE AND FALL OF BI-MEDIA IN THE BBC EAST MIDLANDS[1]

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## Abstract

This article proposes to develop an organisational analysis based on a combination of Medium Theory (McLuhan, 1964; Innis, 1982; Levinson, 1997) and Actor Network Theory (Latour, 1987). It uses the case study of a failed innovation to turn a regional BBC newsroom in Nottingham into a 'Bi-Media' newsroom, to explore the particular nature of media organizations. More specifically, the case study is used to argue that this innovation failed because it misconceptualised three crucial aspects of 'media practices': its technology, its actual organisation and the identifications that enable people to become 'members' of organisations. This misconceptualization is a particular form of 'reification'. We show that organisations take a life of their own - not because of managerial discursive practices – but because they are technologically mediated. Such a mediated reification which in terms of management is understood as 'the organisation' is thus not simply a social construction or the consequence of managerial practices (such as organisational models, flow charts, or mission statements), but becomes actualised in the technological embodiments of organisational work, indissoluble from the ordering-practices that we commonly refer to as 'management'. These technological embodiments manifest themselves as specific identities. This realisation enables us to explain why innovation management will not be effective if it relies solely on a change in social or technical flows, but that it requires a cultural reengineering of the technological embodiments that make up the lived experiences of organisational members and onto which they base their identities.

**Key words: Media Organisations, Technology, Identification**

## INTRODUCTION

If we consider the dynamics of cultural processes in organisations, we discover that with regard to both the organisation-internal as well as the organisation-external axes, there are many 'media' at work that are too easily taken for granted. The field of 'organisational communications' has established itself on the premise of a diversity of communications media affecting organisational processes. Although most of these studies consider "media" to be purely instrumental or technical, some have questioned the very idea of communication as the transmission of information, and thus suggested more 'cultural' interpretations (Alvesson, 2002; Boersma and Kingma, 2005; Evans and Wurster, 2000; Jacobs and Yudken, 2003; Knights and Murray, 2002; Orlikowski et al, 1995; Truong and Corbitt, 2003).

In essence, what we seek to develop is a symbiotic relationship between organisational-cultural research and media-analysis. The intersection between media and organisational studies is not solely the domain of media-organisations, but also of media-in-organisations, media-of-organisations and organisations-as-media. Based on a single case study of the development and subsequent demise of a particular media innovation (bi-media) in a regional newsroom in the UK, we seek to introduce a conceptual reorientation of the intersections between technologies, identities and organisations, focussing in particular on media-technologies, media organisations and media products. We argue against a specifically instrumentalist perspective of the role of technology in change management, by stressing that technology is neither neutral nor incidental. Additionally, we seek to provide a theoretical departure from both media studies and technology studies by combining ideas developed by McLuhan and his associates (often referred to as 'Medium Theory' or 'Media Ecology') and Actor Network Theory, developed by a diverse group of researchers including Bruno Latour, Michel Callon, John Law and Annemarie Mol (e.g. Hassard and Law, 1999). By exploring the intersections between technologies and identification processes in organisational settings, we aim to demonstrate how deliberate interventions designed to affect organisational change actually produce many more unpredicted and unintended effects than desired ones.

Finally, the purpose of this article is to provide a few 'building blocks' with which we might develop a more fruitful symbiosis between media and organisational analysis.

This is predominantly academic in orientation involving the exploration of particular ways of analysing processes, using a number of theoretical insights that are neither currently at the heart of media studies nor of organisational studies. We seek to propose, not so much a new language, but a rediscovery of a relatively marginal tradition in both fields: an interpretative approach that strongly leans on phenomenology. This phenomenology seeks to scrutinize 'the matter' of media and organisation. In so doing, it forces us to critically examine accepted definitions within organisational practices in which media and organisations are too often taken for granted as merely instrumental.

## MEDIA IN ORGANISATIONS AND MEDIA ORGANISATIONS

Media organisations provide excellent case studies for such analyses as their work processes evolve around media-products whose raison d'être is to make sense. Issues surrounding identification as mediated by organisational and technological processes are revealed not only by members' self-reflective observations, but also by more unreflective involvement in work processes, as these are still geared towards sense-making (Weick, 1995) and thus reveal that processes of identification between members are *implicated* in their organisation and the world they inhabit. That is to say, rather than being merely derived from their context (as if they are reading a script); identification processes constitute their life worlds.

In her book "*Inside the BBC and CNN: Managing Media Organisations*," Lucy Kung-Shankleman (2000) attempts to map television newsroom organisation through the normative and rather simplistic model of culture popularised by Edgar Schein (1992). For Schein, the concept of culture is understood merely as a latent infrastructure, that is to say, a hidden and invisible reality beneath the one that is apparent to organisational members. This reality, which for Freudians would be the unconscious, consists of norms and value-orientations. Schein's concept of culture is a purely ideational one, in that it only seems to have an existence in the realm of ideas. It thus engages in a very impoverished notion of culture because it neglects the ordinary, everydayness of material practices, many of which are not at all 'hidden' in layers below consciousness, but are actively expressed and iterated, for example in jokes, banter, posters on the wall, non-verbal communications, artefacts, physical comportment etc.

Kung-Shankleman's reliance on Schein's concept of corporate culture therefore causes her to neglect the far more ambivalent, ambiguous, messy and differentiated nature of cultural practices, that are prevalent even in organisations with high levels of managerial interventions in corporate imagery and representations. Her most serious misreading of organisational culture, however, occurs when she accepts Schein's argument that

> One of the most central elements of any culture will be the assumptions that the members of the organisation share about their identity and ultimate mission or functions. These assumptions are not necessarily conscious but one can bring them to the surface by probing the organisation's strategic decisions (Schein, 1992).

To assume that the concept of identity is coherent and consistent, and that it functions at a shared subconscious level, is to ignore the problematic nature of multiple (and possibly incompatible) professional and corporate identities that exist within organisations (for a similar critique, see Martin, 1992)... It also fails to recognise how the interactions of conflicting identities are essential ingredient in the news making process- to use the BBC example- and that these identities are formed, not in the minds of organisational members, but in their everyday practices of sense-making (Kilduff and Tsai, 2003; Weick, 1995).

Our case study reveals that the BBC journalist is both a professional and a separate corporate being. He or she undertakes a number of different shifts in any working week. They may spend the first day out in the editorial "patch" reporting news, working with a camera operator, and editing material with a VT editor for transmission on the evening news programme. The following day they might find themselves working in the newsroom producing a twelve-minute lunchtime news bulletin. The next day they might oversee the gathering of news material and be responsible for its dissemination to various radio and TV news outlets.

This rotation of functions fits a corporate ideology based on teamwork and a 'flexible labour process' whilst weakening identification with specific task-related professional roles. Yet, it also strengthens a sense of generic professionalism of broadcasting journalism as covering a multiplicity of possible tasks, which all require the ability to make independent judgements based on professional experience and expertise. Schein's framework fails to recognise the multiplicity and differentiated nature of

such professional identifications, as it is almost exclusively concerned with abstract corporate and managerial imagery. His analysis is so far removed from the actual work processes that constitute organisational life that it becomes by and large an irrelevant to a more ethnographically inclined analysis such as the one we have undertaken.

## METHODOLOGY

The empirical basis of this work is partly historical and partly ethnographic. The historical work is derived from secondary sources and – one may argue – therefore more prone to a repetition of 'received wisdom' with all the risks that this involves. The ethnographic work is original, and is part of an ongoing research project.[2] The research was conducted between September 2002 and April 2005. Hence, our analysis of the Bi-Media involves a historical reconstruction by those actors who had experienced the changes in the mid-1990s. As the newsroom consists of a rather flat organisation (with only two levels) and is not managed through lots of paperwork, we had to rely on oral histories, As a result, it is of course strongly tainted by forms of revisionism that seek to justify the present. In fact, it can be assumed that some among those who now distance themselves from it might have been quite strong advocates of it at the time. It is unlikely to simply have been an idea stemming from managers. The manager-journalist opposition is in many ways an artefact of historical revisionism. However, as only two members of the current organisation were in managerial positions at the time of Bi-Media, there is a bias towards the accounts of journalists, engineers and support staffs who seek to distance themselves from Bi-Media. The point however, is not to set up an account of reality according to the points of view of journalists versus managers, but simply to show how forms of management that deploy modes of reification are likely to fail in instantiating effective innovations. In other words, the point is not to show 'who was right', but to argue that change management needs to take the technological infrastructure of

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[2] The majority of this research has been carried out by Emma Hemmingway as part of her PhD thesis. Joost van Loon's contribution to the empirical research is limited to the analysis of the bi-media. The ethnography consists of frequent visits (usually involving a consecutive period of at least one week) to the newsroom where we often just 'hung around' and chatted with people. We attended various daily meetings, followed reporters 'on location'; observed the processing of data at the 'mediahub' and in editing suites; observed the broadcasting of programmes from the gallery; 'interviewed' numerous reporters, editors, assistants, engineers. Emma Hemmingway also visited the BBC training centre in Newcastle. In addition, we collected documents, memos, email conversations and recorded several of the 'East Midlands Today' programmes that were broadcast.

organisational processes into account and these include the very nature of identities of organisational members.

Methodologically, this study consists of a range of different techniques of 'data gathering'. Firstly, we conducted a series of observations inside the newsroom, as well as at various locations outside the newsroom where news was being 'gathered'. These have taken place regularly during a three-year period. In addition, a series of one-to-one interviews were conducted with various members of the newsroom organisation, including technical and support staff. Thirdly, regional television news programmes have been recorded, transcribed and analysed. One of the members of the research team also has twelve years experience working as a reporter and producer within several television newsrooms, one of which was BBC East Midlands in Nottingham, our case study. As a result, she has been able to utilise autobiographical experiences and references that have enabled the team to develop more reflexive data-gathering methods and interpretations of findings. We have deliberately steered away from involving lengthy quotes and testimonies of individual members in favour of a more synthesized generic reading, as we are not concerned with personal opinions and evaluations, but with mediated processes. Hence, our ethnographic approach is not a series of interviews, but a 'cultural analysis' which strongly emphasizes a reading of 'contexts' and 'ambience' rather than representing an allusion to 'hard facts' through individual testimonies or documents.

The best way to integrate such divergent methodological approaches is to use what Edgar Morin describes as a *'Méthode en vivo'* (cited in Paillard, 1998). Consisting of a relatively open and embedded notion of fieldwork, this is a highly flexible and informal way to gather different types of information, usually within a demarcated spatial setting, which is thus highly conducive to single case studies such as ours. The main advantage of such a loose framework is its flexibility and hermeneutic ethos. The disadvantage is that such a method may lack structure and is thus susceptible to idiosyncratic and anecdotal subjectivism. We hope to offset the latter by taking a deliberate and reflexive dialogic approach to hermeneutics by including the involvement of people who are still actively engaged in news work.

It is tempting to look at organisational cultures as autonomous entities which can be analysed in true anthropological fashion during periods of time in which the ordinary is performing exactly as expected. However, what we noticed in our research of the

BBC newsroom was that 'the ordinary' of everyday news work was far less ordered than an organisational cultural approach such as that of Schein (1992) would presume. The lack of predictability is primarily due to a complex dynamism of shifting networks. This is true of many professional organisations that Mintzberg (1983) once described as '*adhocratic*'. However, as news work often appears to be routine, the displacements of operations and identifications (e.g. the reconfiguring of practices around technological innovations) we observed in news room practices at the BBC in Nottingham, are more than merely 'noise' in an otherwise smoothly operating system.

## THE CASE STUDY CONTEXT

The BBC television newsroom in Nottingham is an open but specifically demarcated space, wherein separate "departments" which are denoted by separate collections of desks, oversee both the newsgathering and the subsequent production of news.[3] In the newsgathering department news is sought after, identified and tracked down. Sub divisions comprised of individuals, or entirely separate departments are located within the newsgathering department.  These are the planning department, known as "Futures", specialist television correspondents, and the resources department, which is comprised of all the technical resources available to the newsroom, from satellite trucks to camera crews, lights and mobile edit facilities. Newsgathering also includes the Personal Digital Production (PDP) operators. These are individual reporters, camera operators, VT editors or technicians who all have their own digital cameras and film and edit their own material.[4]

Opposite the newsgathering department is the production department, normally referred to as *Output*. Here the news is written, produced and transmitted. This department is comprised of all the production staff on shift within the newsroom; a general production journalist, a senior production journalist (SPJ) responsible for the production of the shorter bulletins and the 12-minute lunchtime bulletin, a lunchtime presenter and weather person, and two main programme presenters, as well as the main output producer who is responsible for the production of the main evening programme.

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[3] For an in-depth analysis of the spatialization of news work, see Hemmingway (2004).
[4] PDP is a relatively new addition to both the newsroom and to the newsgathering department. The innovation of PDP and its specific embedding within the network is described by Hemmingway (2005).

These two departments are crucially interdependent, and individual workers within each have a shared tradition of knowledge, based upon experience and inherited work regimes. Thus there is communal recognition of accepted output between departments, and as Cottle (1993) also recognises in his study of independent regional news, both departments work towards a shared understanding of the specific news form. This could initially lead one to assume that journalists are routinely or even organisationally conditioned to produce expected news formats and content. Yet such studies of the manufacture of news that have attempted to address the mechanics of news organisation (e.g. Tuchmann, 1978; Tunstall, 1971; Fischmann, 1980; Schlesinger 1978 and Soloski, 1989) and that reach similar conclusions based around evidence of organisational or corporate bias have tended to neglect the subtleties of the internal news episteme. A tradition of working practice is certainly commonly observed, but even the separate news departments - although they are similarly structured and may even share staff and resources - adopt distinctive and unpredictable approaches to individual stages of news production.  It is these varied and often contingent practices, crucially characteristic of this internal news episteme, which a theoretically informed ethnographic analysis can begin to explore in more detail.

The regional television newsroom is responsible for the transmission of separate news bulletins throughout the day. The early morning journalist produces and presents breakfast bulletins of four minutes duration every half-hour from 6.30am until 9am. These have been written by the overnight journalist and edited the previous evening. The lunchtime bulletin, which is twelve minutes long, is transmitted at 1.30pm after the BBC's national lunchtime news. The main evening programme, which is known as *East Midlands Today*, is transmitted at 6.30pm and is 28.40 minutes duration. All the regional programmes are transmitted immediately after the BBC's national news, or within a national news programme such as BBC Breakfast News, from which the regional newsroom opts out for its half hourly bulletin transmissions.

At BBC East-Midlands, the regional television newsroom is also shared by BBC Radio Nottingham and both are responsible for providing the BBC's national radio and television newsrooms with material should they request it. Until recently, the official managerial account of the structure of the BBC East Midlands typified it as a 'Bi-Media newsroom', which meant that a television journalist working for East

Midlands Today could be expected to also provide material for the radio bulletins by recording interviews, and voice pieces while out on location filming his/her television package. However, whereas this exchange of work is still the case, Bi-Media[5] is no longer a leading management concept.

It is the rise and fall of Bi-Media as a managerial *Big Idea* that is of concern for this article. We want to explore the way in which the introduction of Bi-Media discourse (the *Big Idea* as opposed to bi-media practice) had been implemented as a form of change management, how it affected the work process and how it evolved, developed and subsequently failed as an organisational practice.

## BI-MEDIA: FROM PRACTICAL SENSE TO MANAGERIAL INNOVATION

The beginnings of bi-media practices - i.e. television and radio newsrooms sharing stories, interview data and sound bites - started in the 1960s with the emergence of regional television news. According to one senior assistant editor, who was a journalist at the time, this was 'a most natural thing to do'. As BBC colleagues (working for the same company) individuals shared information about stories, including recorded material. This could vary from mere tip-offs about events or breaking news to entire 'packages' being 'made to fit' both radio and television (although, due to the nature of the different media involved – see below – this was relatively rare).

The co-existence of radio and television in the BBC structure is complicated by the fact that radio has a local and television a far more regional character. BBC East Midlands has one television newsroom, but incorporates five separate radio stations. The main local radio station is Radio Nottingham. It shares the open newsroom space with regional television; although their locations are still quite differentiated in terms of the organisation of desks. The Newsroom is L-shaped, and radio occupies the smaller end-part of the 'L'.

The Nottingham newsroom also services what is known as a local radio cluster. The cluster for BBC East Midlands is comprised of five local radio stations. Apart from

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[5] In this article, we distinguish between Bi-Media as a managerial *Big Idea* (a term deployed by one of the managers to critically distance himself from it) and bi-media as a journalistic practice. Both are rather different, as the first represents a relatively short period within the BBC East Midlands newsroom (roughly between 1992 and 1996), whilst the second spans a time-scale of over 40 years as it emerged with the development of regional television broadcasting and is still relevant today (albeit in a somewhat different form, due to technological innovations).

Radio Nottingham, these are: Radio Derby, Radio Lincolnshire, Radio Northamptonshire and Radio Leicester. Each radio station has an individual radio editor and is staffed by a team of local radio reporters, managed separately by local radio managers. As a cluster, they are also managed at a regional level by the Head of Regional and Local Programmes who has managerial responsibility for the regional TV station at Nottingham, as well as all the local radio stations in the East Midlands geographical area.[6]

Although the exact genealogy of the *Big Idea* of Bi-Media remains a mystery (those responsible for its initiation no longer work for BBC East Midlands and its rationale was never formalised in documents; the documentation only concerns its implementation) journalists, managers, engineers and support staff who lived through it recalled it as an attempt by the corporation's senior management at that time to consolidate a structure of newsgathering and production that was less dependent on haphazard links and goodwill of individual members of staff. This idea was strongly supported by BBC headquarters in London, for whom the regional newsrooms are often used as 'test cases' for innovations.

As an overarching concept of change management, Bi-Media it represented an ideal: that of a unified and standardized form of news production that would also use its human resources more efficiently. Needless to say perhaps, the more cynically inclined interpretations saw this efficiency-drive as a cost-cutting operation that represented the corporation's never ceasing urge to be seen to be spending the licence-payer's money prudently.

The *Big Idea* was to formalise news production in such a way that there was a single unit responsible for the collection of news stories and the organisation of the allocation of staff to cover the stories. This unit was called Newsgathering. The key operational function within this unit was the 'news-organiser', who normally was a senior TV journalist. The radio editors of each individual station were to be in regular contact with the news-organiser, to find out what news was being covered, and what material they could expect to receive. The news-organiser thus unified the newsgathering process feeding into both television news programmes and radio bulletins.

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[6] Within the local radio stations there are also separate PDP bureaux, based at Leicester, Derby and Lincoln, each staffed by two PDP operators.

A second major element of the *Big Idea* was that television and radio journalists were expected to work interchangeably for both media. Television journalists could be asked to do radio-shifts and radio-journalists could be asked to do television shifts. Moreover, they were expected to do their news-packages for both radio and television formats, aided by the fact that BBC East Midlands was set up as the first fully-digital BBC newsroom; the digital set-up enabled the same machinery to process and edit both visual and audio-material simultaneously.

The ideological drive of the *Big Idea* was geared towards creating an ambience of a vibrant dynamic newsroom in which professionals would comfortably switch between different tasks and roles, and happily develop news packages for both radio and television, each according to the particular specifications of the medium and programming.

However, in practice, this *Big Idea* was not particularly liked. One journalist described is a big *'news mincing machine'* where everything would be churned out like a news-factory, without regard for the subtleties of personal, professional or technological specifics. Moreover, there is widespread consensus amongst managers and journalists that it did not really work. The desired symbiosis between radio and television never really took place despite the considerable efforts by management, in terms of reconfiguring the organisational structure and the news process, human resource management and staff development (such as retraining radio journalists to work with camera crew) as well as its technological facilitation.

Today, the *Big Idea* is a thing of the past. Nobody talks about Bi-Media anymore at management level. Yet, on a practical level the (bi-media) practice of sharing information, sources, stories, clips and sound bites has continued and has even rediscovered some of its original ethos. It is *as if* the *Big Idea* never really took place; *as if* for a brief moment in history, the BBC's management tried to formalise an existing practice that was never really affected by it. However, when taking a step back from the recollections of journalists and editors, it can be argued that the Bi-Media experiment did have some far-reaching consequences. It revealed an innate incommensurability between radio and television journalism, it reinforced a generic scepticism by workers towards change management and perhaps vice-versa. Most

importantly, perhaps, it reverberated years later in the demise of the news-organiser, whose role was seen by many as the epitome of Bi-Media thinking.[7]

## TELEVISION IS NOT 'RADIO WITH PICTURES'

It is of course not unusual for management innovations to go pear-shaped. Actually, this is more common than successful innovations (Knights and Murray, 2002; Watson, 1994). Indeed, to explain the demise of Bi-Media, we could have drawn on existing organisation theory which, especially since the postmodern turn (Burrell, 1988; Cooper and Burrell, 1988; Clegg, 1990; Boije et al. 1996), has reoriented itself away from the development of normative business models that can be appropriated by management, to insist upon issues of complexity, ambiguity and ambivalence (Alvesson, 1994, 2002; Cziarniawska, 1992; Martin, 1992). This turn enabled many critical organisational analyses to denounce change management as a form of social engineering, destined to fail as it was unable to incorporate the lived complexity of everyday life. A focus on complexity undermines any perspective that suggests that innovations can be managed either in a top-down or bottom-up fashion. Both are equally likely to fail due to incompatible interests and concerns.

However, it is somewhat premature to rely on this rather obvious and, in our opinion, somewhat facile conclusion as a definitive statement on change management theory. What is needed instead is a stronger integration between empirical analysis and theoretical reflection of particular successful or failed innovations in organisational settings, to generate greater insights into the conditions under which the engineering of social and cultural change operate and which influence their ability to produce desired outcomes. The main point we want to emphasize is that even if managerially driven innovations usually have more unintended and undesirable effects than intended or desired ones, they are not inconsequential. That is to say, in the case of the BBC, the failure of Bi-Media has had irreversible consequences for the way in which news production operates and is being shaped. What is sometimes derogatory referred to as 'Management Bollocks' (or, in more polite terms, 'Heathrow Management Theory', e.g. Watson 1994) does affect the way organisations work, even if not in the way it is usually intended.

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[7] However, as Hemmingway (2005) has argued, the demise of the news organiser is not entirely due to the collapse of Bi-Media, but also resonates with other factors, including technological innovation (PDP) and a change in management personnel.

Our case study of bi-media/Bi-Media provides us with a unique opportunity to analyse the implications of an change management failure that has none-the-less produced peculiar organisational effects both with regard to the technological facilitation of work processes and the processes of identification that anchor these in members' everyday life. However, we need to widen our theoretical focus. The usual critiques of change management are unable to explain how innovations affect work-processes, lacking as they do a grounded phenomenological understanding of the complex interplay between humans, technologies and artefacts that constitute those work processes. In our case-study, the humans are professionals, mainly journalists or former-journalists that have become managers; the technologies are media-technologies, including technologies of information gathering and processing, and the artefacts are news products, both in their 'raw' state (as semi-processed information and unfinished news items) and as finished products (that have been broadcast).

In explaining what went wrong with Bi-Media, we want to proceed in two steps. First, we want to highlight the way in which the members of the Bi-Media newsroom explained its failure, before attempting to link such explanations to a wider scope of theoretical analysis that may serve theoretical work in both organizational studies as in media studies.

When asked about the demise of Bi-Media, journalists mentioned a range of factors. Some pointed towards the impact of the reorganization and the creation of a news-gathering department as increasing layers of bureaucratic interference that were obstacles to effective and creative news production. The news-organizer in particular was often mentioned as a bit of a problem. It was a well-known fact that very few senior journalists actually liked to do the news-organizer's shift, because it was a rather boring and desk-bound job, with often not enough work to do to fill a full day's 10-hour shift.

Others mention technological changes, particularly the introduction of PDP as causing massive shifts in the way in which the organization is run, making the news-organizer's role obsolete, especially because within each of the five local radio-stations, a 'bureaux' would be set up to facilitate more local-based television news production using PDP. PDP also affects the nature of news, as it favours the production of features that have a greater emphasis on human–interest stories and

visual delivery (Hemmingway, 2005), making them inherently unsuitable for radio-news.

However the most consistent factor that is mentioned by those who were involved in Bi-Media is the fact that radio and television journalism are inherently different things. As more than one journalist stated, the Bi-Media *Big Idea* suggested that *'television is like radio with pictures'*. Instead, many journalists argue that these forms of journalism require different sets of skills, perceptions of the nature of news stories and how to conceptualise them, and social relationships (teamwork) to produce them. This factor strikes at the core of the article. We want to argue that as a *Big Idea*, Bi-Media failed because of its neglect of fundamental differences between radio and television journalism in terms of three elements: (1) the medium-technology; (b) the social organisation of the work process and (3) the professional identifications associated with radio and television news. These are each in turn discussed in the following sections.

## MEDIUM-AS-TECHNOLOGY

Media are usually restricted to communications media such as print, radio, television, telephone and the Internet. In itself, however, this list does not provide any greater insight into the nature of media. Indeed, rather than an enumerative definition of media, we are in need of a logical one. Marshall McLuhan (1964) offers one that is elegant in its simplicity: "Media are extensions of 'Man' [sic]. As extensions of man, media relate to specific human faculties, and make them operational across time and space, not merely to extend them, but also to intensify them.

Following McLuhan's mentor Harold Innis (1982), we want to invoke the notion of 'bias' Innis understood bias as ways in which specific orientations and perspectives become attuned to particular definitions of the situation. In simpler terms, bias replaces the question: 'why do we attend to the things we attend to?' (Comor, 2003). The bias that is inherent in any specific medium invites us to orient ourselves towards the world in specific ways. The process of mediation, which one could understand as the way in which media 'work' in social practices, thus consists of highly specific forms of *attunement*. Attunement is the mode of orientation that governs the human-technological interface of any technological practice (Van Loon, 2002).

For Innis, bias attunes us in particular ways to space and time. That is, some media, such as stone (used for inscriptions) are better suited to endure, but more difficult to

move around. They facilitate time-biased social systems, where duration is the key to accumulating power, wealth and knowledge. In contrast, paper is much less enduring but much more mobile, hence more easily connected to transportation systems. As a result, paper can carry messages across greater distances and facilitate modes of control that have a space-bias.

McLuhan adapted Innis' inherently political economic perspective to theorize bias in relation to physiological and psycho-social processes. That is to say, McLuhan linked the concept of bias to a more phenomenological reflection on the human body. A simple example would be the difference between radio and television. Whereas radio works through audio-systems, it intensifies our imaginative-visual capacities (a process which McLuhan (1964: 292) described as 'synaesthesia', or the cross-over between different senses). Television, in contrast, does not challenge our visual orientation, but instead works on our emotive constellation and thus involves the viewer in much more depth. Whereas for McLuhan (ibid: 259) radio was a 'tribal drum', offering a viable (populist) alternative to more elitist print-based cultures that intensified non-linear thinking, television (dubbed the 'timid giant' (ibid: 268)) was an extension of our central nervous system, a massive conductor and processor of feelings and emotions.

Hence, in McLuhan's form of medium-theory the bias of a medium is always embodied and its logic is integrated into the psychological and physiological organisation of the human body, particularly the senses. However, whereas the concept of bias is usually understood as an effect of the 'internal' properties of media, both Innis and McLuhan were much more cautious and insisted on the importance of the social, political, cultural and economic context in which media were made to work as technical systems. That is to say, their versions of 'medium theory' did not espouse technological determinism.[8]

Following the work of Latour and his associates in Science and Technology Studies (e.g. Latour, 1987), we could perhaps rephrase this by stating that media-technologies are put into operation within networks of complex relationships and interactions between a wide diversity of actors. This is often referred to as 'Actor Network Theory' (ANT). Neither Medium Theory nor ANT would suggest that media

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[8] Technological determinism is a type of theorizing that works on the assumption that technology is the ultimate driving force of history.

technologies are 'merely' instrumental. Media do have a capacity to 'act' – the reality of which we discover when something 'does not seem to work' or 'breaks down'.

The extreme opposite of technological determinism is instrumentalism: the idea that technology is nothing in itself but merely a vessel for specific intentions and motivations (e.g. as seen in the gun lobby's argument against the prohibition of fire arms: 'guns don't kill, people do'). As with technological determinism it is extreme because it runs contrary to our common sense and our everyday experiences. It is clear that technologies are being designed with particular intentions and to serve particular goals. Guns are designed to kill; their purposefulness is thus bound with its usage: to kill is inherent to the technology of the handgun.

The process of mediation is bound to the nature of technology. As Heidegger (1977) wrote 'the essence of technology is to reveal', but this does not mean that technology reveals things as they are. On the contrary; for example, nuclear technology reveals energy-sources at the molecular level by putting them into use. It thereby turns atoms and molecules into resources that are placed on standby for technological exploitation. However, it is quite wrong to say that the essence of uranium is nuclear energy. Instead, nuclear technology has reduced the essence of uranium to a mere energy resource (a 'standing reserve') to be prepared for our exploitation; to serve our own particular, short-term interests. What technology thus reveals is how it can prepare things to become 'useful'. This 'becoming useful' is the overarching of modernity which, as we know from our everyday experiences, often equates usefulness with comfort, convenience, speed and – last but not least – being profitable.

Hence, technology not only reveals, but also conceals. In the process of transforming something into a standing reserve, technology conceals its own bias and selectivity, its own logic of operation. The very fact that we often understand technology as mere instruments that facilitate our actions but do affect neither our actions nor ourselves is the prime example of this concealment. This is very clear when looking at media technologies which generically take the form of the *camera obscura* or black box (Latour, 1987). What happens 'inside the black box' is hidden from our senses; we are invited to experience only the 'outcomes', e.g. pictures of the world. The bias 'why do we attend to the things we attend to?' is conveniently bracketed off and concealed.

Yet, if we look at the history of, for example radio and television (and even print, see Winter 1996) – media technological innovations often precede content. That is to say,

the drive for the popularization of broadcasting primarily came from the producers of receivers (such as Philips). It was only at this stage that concerns were raised about what kind of content was needed to make these media 'useful' for consumption (Williams, 1975). This is why McLuhan's famous statement 'The Medium is the Message' (1964: 23) is so accurate. The media with which we extend ourselves have become co-constitutive of our being in the world. The need for content is generated by this sudden surge in self-externalisation.

If we reject both technological determinism and instrumentalism, we end up with what is closest to our everyday experiences: technologies are capable of acting but perhaps neither 'on their own' nor 'for themselves'. Technologies rarely come into being as the result of the acts of one person; their actions only become effective through, with and in the actions of other actors. The major mistake in much of current thinking about technology is that we have reduced it to a tool or artefact.

Media technologies reveal and conceal at the same time, and in doing so, produce a sense of truth and of reality, that appears as fully self-transparent, yet highly biased and partial (Vattimo, 1992). The concept of bias is perhaps the most effective way of exposing this double-edge sword. For Innis and McLuhan, the revealing/concealing of a medium relates not simply to the 'matter' of communication, that is, its internal properties, but to the way in which it becomes operational. In other words, a more adequate theorization of media-technology should highlight the interplay between (a) the technological artefact (the tool), (b) its practical applications (usage) as well as (c) the knowledge and skills that are necessary to make it work (know-how). The triad of tools, usage and know-how is what we call 'technology'. This is why it is wrong to interpret the concept of bias solely from the perspective of the 'matter' of communication; bias is not a simply consequence of the internal properties of a medium, but of the articulation between the medium (and its matter), the way it is being used, and the know-how with which this use is deployed, modified and transferred.

It is this constellation of matter as 'artefact', 'usage' and 'know how' that marks the process of mediation as technological in a much wider sense than what we would be able to think on the basis of communication media as mere instruments. Mediation is inherently technological and as a result prone to engender specific forms of bias. More concretely, it suggests that radio and television are rather different media-

technologies, not only because their 'matter' is different, but also because they are used in rather different ways and the do not require the same know-how to work adequately.

In terms of the matter, radio journalism is geared towards producing short bulletins which recur frequently (in Nottingham, every hour), which are carried by the spoken word, which – because it is almost entirely focused on the voice, has over the years developed in a very distinctive and recognisable speech genre (the 'voice of the BBC'). At BBC East Midlands, radio journalism is much more strongly tied in with the generic programming of Radio Nottingham. This means that here radio is an almost continuous flow within which news serves a small part. As a result, radio journalists seek to maximize their 'impact' on the programming flow by delivering 'hard news' about murders, crimes, convictions, local campaigns etc.

Television news, however, is the centre piece and flagship of BBC East Midlands; the TV newsroom is often seen as the physical facilitation of one programme only: *East Midlands Today* – often simply referred to as 'the programme' (although there are several other news bulletins).  The programme is not a news bulletin but more of a magazine; journalists working for TV see their work not as 'hard news', but look to provide an interesting angle, the basic criterion for which is usually 'what does it look like in pictures?'. News items and packages are often much longer in duration than on radio; they are less 'time bound' (their value has to carry throughout the day); and also have to fit in with 'family viewing time' (early evening).

This brings us immediately to 'use'. Radio journalism is linked to the use of radio news, which is consumed in spaces where the visual domain is dominated by other activities (e.g. in cars, on the shop-floor, in offices). Television news is consumed in front of the television, usually in domestic settings, where visual distraction can be integrated into everyday operations (such as peeling potatoes or eating supper). These modes of usage are reflected in the work practices, as radio news has to compete for attention with a possibly endless range of other attention demanding stimuli, whereas television news generically only competes with other television programmes. Radio news is therefore more oriented towards short interruptions or shocks; television news is a more gentle flow (Williams, 1975/1990). This has obvious consequences for content. The latter is far more conducive to 'soft' news such as features and human-

interest stories, whereas the former is more closely tied to 'hard' news and factual reporting.

It is no surprise then, that there are vast differences in skills necessary to be an effective radio journalist compared to a television journalist. Radio journalism is usually content-focused; television-journalism is more often than not form-focused. Television journalists spend most of their time perceiving a potential news-story from the perspective of the imagery. Radio journalists, in contrast, focus on facts and statements.

Taking all this into account, it is already not hard to see why the *Big Idea* of Bi Media had very little chance of succeeding. It was based on a gross misconception of the technological constellation of news-work. It reduced news production technology to a mere instrumentalism; and failed to see the 'bias' of each of the different media. In a Bi-Media newsroom, where the dominant ideology is that everyone should be able to work in a range of functions, it is assumed that such differences in necessary skills, usage and the matter of media are not so relevant. To turn a radio journalist into a television journalist would be a simple matter of some technical training about the basic rules of camera work. All that was thought was needed was to give radio journalists a basic retraining in how to work with a camera crew and how to present in front of a camera when doing a piece. Such a view suggests that a camera is a mere piece of equipment and visualization is a capacity that requires no additional personal and professional development.

## THE ORGANISATION OF THE WORK PROCESS

The second set of explanations of the failure if Bi-Media relates to the organization of the work-process. In essence, the logic of mediation is that of 'coming in-between' and this is exactly what marks the very existential essence of 'organisations'. Organisations, too, are entities whose raison d'être is 'to come in-between' (input and output). From the first critical studies of bureaucracy by Michels and Weber to contemporary postmodern organisational theory (e.g. Clegg, 1990), there is a continuity of thinking which contemplate organisational phenomena as mediations of some kind (e.g. chains of command, operationalising decisions and strategies, even microcosms of life itself; e.g. Morgan, 1986). On a phenomenological level, there is a very close association between media and organisations, which deserves a close and critical look.

Van Loon and Ybema (1997: 5) once defined organisations as 'ensembles of socio-technical flows, connecting humans and machines'. This was posited as a shift in thinking from the idea of configurations (central to most modernist organisational theory), which follow a certain pattern of contiguity with the particular blue-print of their design, which is the traditional view of organisations. Whereas this definition of organisation has strong Deleuzean characteristics, there was also already an implicit association with Actor Network Theory. In ANT, technologies play a central role as actors in their own right, whose actions are, however, usually only recognisable within particular network settings through their effects on other actors.

Those who have been involved in organisational ethnographies know very well that organisations are never self-standing entities, although in our speech and in the everyday speech of its members, there is a fair amount of reification going on. This reification, however, is not invalid because organisations cannot act - they undoubtedly can and do - but because it obfuscates the nature of action itself. It is, ultimately, a gross simplification that loses its empirical validity because it forecloses critical scrutiny (Weick, 1995).

What we ascribe to as the *aliveness* of organisations is the work of its members, its actor-net-work. The net-like character of organisational work is symbolic of the multiplicity of consequences, impact, effects and affectivity that are brought into being by the countless acts of its various constituents (Morgan, 1993). The aliveness is related to the complexity of implications – which go well beyond intentions, deliberations, aims, objectives, rationales and results that we associate with 'management strategies' (Douglas, 1986). The *implicatedness* of actions can only be partially grasped within discursive practices – and this is the ethnographer's dilemma: should we focus on what is being revealed explicitly, or continue to dwell on that which remains invisible, silent and hidden? And this is the still the same old methodological problem of structuralism versus empiricism.

When Latour and Woolgar (1979) wrote *Laboratory Life*, they provided a fascinating 'live' account of a laboratory-at-work; it was painful as well though. Like in a vivisection, they destroyed a few myths about the Scientific Method; science-at-work is far more reasonable, far more contingent, far more ambiguous, and far more alive than what the Scientific Method prescribes. Yet, the Scientific Method is not completely absent; the scientists do not completely ignore it; on the contrary, they

genuinely believe that the work is situated within the remit of the Scientific Method; and rightly so because it usually is. They did not provide some sort of postmodern critique of science, but instead, developed a genuine appreciation of how to do modern science.

We propose that this should be the model of how we are to look at the role of management in organisations. Managers do not design organisations; they do not even control organisations, but they still make a significant contribution to organisational complexity by offering a specific 'layer or rationality'; whilst management is the actualization of reification, it is also the provision of the ultimate exposure of the fallacy of reification.

In the BBC East Midlands management is generally seen as external to the day-to-day work of most of the productive members – journalists, producers, broadcasting assistants, camera crew and even support staff. Management is generally referred to as 'they'. Less charitably perhaps, management was described to me once as 'a specific career path for those not blessed with heaps of talent', or as 'those people with ruthless ambition'. Members who were not involved in managerial activities, are by and large less prone to a reification of the organisation because they saw the work of the organisation as a direct consequence of managerial actions and decisions. Indeed, the distinction between bi-media as a practice and Bi-Media as a Big Idea was made by several of these members who were then able to explain why Bi-Media had vanished but bi-media was still doing quite well.

In contrast, those who work in management are very prone to developing reified accounts of their organisation (even a middle manager who works on the managerial and journalist sides tended to reify the organisation when speaking as a manager). For management, the work of members is circumscribed by a wide range of conditions and facilities, over which even they themselves did not have absolute control (e.g. when referring to 'market forces' or 'legal processes'). What they see as the actions of the organisation are indeed the whole plethora of intended and unintended interventions by various members and adjacent elements (machines). From this perspective it can be deduced that the purpose of the Bi-Media *Big Idea* was to consolidate and streamline already existing bi-media practices. Making them more efficient and coordinated, this would enhance the professional-managerial credit of

those responsible for the organisation of the BBC's regional and local news production.

However, what comes across as a self-standing living entity 'the organisation' is – of course – a discursive reality, which reveals itself not as it is, but through moments of resistance, as an intransient 'obstacle' (a 'satan' in old Hebrew), or a colossal beast that is unwilling to be steered into a desired direction. Management is itself a form of mediation – of revealing and concealing, or better 'ordering'. What management mediates is the complexity of the networks and flows that make up 'the organisation'; what it reveals is 'reification', what it conceals is complexity.

When BBC East Midlands was chosen to be the guinea pig for introducing Bi-Media (in a fully digitalised newsroom), it looked on paper as a simple managerial operation to rearrange schedules and flows so that journalists would be enabled to produce these two different packages without too much hassle. The managerial reification of the organisation overplayed an emphasis in corporate integration at the expense of distinctive professional expertise. It was *as if* the Bi-Media experiment had been induced by Heathrow Management Theory, creating the belief that all that was needed was a simple reorganisation. The B-Media experiment reflects a failure to understand the significant differences in the practical organisation of news-work, that is, in how radio and television news actually come into being.

One crucial factor here is teamwork. Radio journalism is inherently individualistic; it does not require a team to develop a radio package. In contrast, television journalism was, until recently, more of a team effort. Because of the centrality of visual imagery, camera work is a specialised professional activity for which one had to receive specialist training. Camera crew are often not journalists, although they do need to have a 'feel' for a journalistic approach to a news story. Television journalists have to work alongside camera crew and in some cases direct them, yet also rely on their specialist expertise. This requires forms of collaboration and attunement that are delicate and subtle. The ability of reporters to work effectively with camera crew not only depends in an interpersonal rapport, but also on what Latour and Woolgar (1979) refer to as 'the cycles of credit' which determine the reputation 'status' of the reporter (as experienced, talented or perhaps none of these).

A key moment for the establishment of cycles of credit is the 'feedback session' which follows the main evening programme. Here the output producer comments on

the individual contributions and the teamwork. It consolidates the sense of team-work but also inaugurates or affirms cycles of accreditation, which subsequently circulate through the newsroom as reporters build up or consolidate a reputation. A very effective method of circulating credit is 'banter' in which the style or character of an individual member is described, often in humorous or colourful terms. At BBC East Midlands, there is a Mr Muddle (someone prone to make very basic mistakes) and an Uncle Barmy (a technical boffin) and one reporter's style of producing news packages was described as attaching a camera to a piece of elastic and swinging it around, stressing that this person's style of news making overemphasised visual gimmicks.

Radio journalists do not have a central programme around which their working day evolves and do not have such a clear focus to engage in these cycles of credit. Lacking such moments of establishing themselves, they could not invoke their reputations in their collaborations with camera crew. Also, having no experience in television reporting, even experienced radio journalists lacked the capacity to direct and work with camera crew, who always strongly depend on the reporter to develop a specific story through visuals. As a result, radio journalists doing pieces for television often produced visuals that were below standard, especially because they would still be in charge at the editing stage. Even good camera-work could thus be spoiled by inadequate editing.

## IDENTIFICATION[9]

Radio and television journalists do not consider each other to be of the same species. In some cases, there is considerable animosity between radio and TV journalist. The former see the latter as a bit arrogant, working towards their own fame, but also as trivializing news, lacking in concern for 'facts', favouring style over substance etc. Television journalists often dislike radio journalists for assuming that TV news is just like radio with pictures; having no idea of aesthetics, or of individual creativity. It should come as no surprise then that the Bi-Media *Big Idea* also failed because of this identity-clash. This shows the relevance of identity in organisational processes. Apart from the failures of reification through the deployment of an instrumentalist notion of

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[9] In this section, we have refrained from invoking 'identity theory' as such in order to show that combining Media Theory and Actor Network Theory provides a more than adequate basis for understanding identifications. As a result, we do not need to engage in psychological or sociological speculations about motives and reasons behind identifications which suggest that identification is a simple matter of 'choice'. Instead, we insist on conceptualizing identification as a practice that does not require a pre-constituted orientation of belonging (unlike the notion of 'communities of practice').

technology, managing organisational processes also suffer from failures due to the reification of 'identities'.

The issue of identity is perhaps most easily posed as a question: 'who are you?' When this question is asked over the telephone, for example, we are asked to give our name, perhaps in conjunction with an institutional or professional affiliation. Our name is the first and principal 'signifier' of who we are in many institutional settings. When we are asked to 'show some proof of identity' (also, interestingly, referred to as 'identification'), we will hand over something that indicates our name, as well as a set of signs that underscore the legitimacy of this identification (e.g. an official logo) and – most crucially – a photographic picture of ourselves; making the iconic link to anchor the arbitrary sign of the name to the physical appearance of our personhood.

Passports are perhaps the most universal form of official identification. What is peculiar about passports that they are a 'proof of identity' whose authenticity is derived not from the likeness of the description or photograph of the subject of identification, but from the official state-authority of the institution that dispensed the passport. This clearly reveals that the so-called 'individual subject' on his/her own is not sufficient to guarantee the authenticity of his/her own identification. He/she can only do so in conjunction with an official authority, identified by – for example – a stamp or signature.

Yet, passports reveal even more than that. They also contain numbers and a barcode. This provides the technological facilitation of our identification. It enables our beings to attain a virtual presence in various official databases and data-processing operations (e.g. for verification). In a very literal sense, this reveals that indeed 'media are extensions of 'man' – the barcode, the ID-number; they become the interface, our representative in digital landscapes.

With the coming of biometrics and eye-scanning techniques, we will have the final piece of this transformation. What these do is they transform our own bodies into data. They remove the last bit of arbitrariness between our physical and virtual selves (the ID-number is after all unconnected to who we are). Biometrics transforms our very own bodies into numbers, digital code. They complete the technological mediation of our identification. It shows that indeed, identification is performed by 'actor networks'.

In essence, 'identititification' is something that we 'have' and something that we 'are'. We have an identity and we are something. This goes further than language. We identify ourselves by what we have, both in material terms, but also in biophysical terms (e.g. e.g. hospital patients are identified by the ailments and diseases they have). The 'having' of an identity provides a social function. It enables us to classify ourselves and others, to make group-associations possible (very useful for managerial processes), and it can operate as a prescriptive device for actions. All these forms can be linked to aspirations geared towards forms of belonging which are simultaneously forms of inclusion and of exclusion. In the literature, this is usually referred to as 'social identity'.

Yet, at the same time, our understanding of identification goes deeper than that. We are. This being belongs to us as an inalienable part of our existence; the fact of our existence is revealed by this entering into language 'I am'. Before one can answer 'what am I?' one already presupposes 'I am'. It is this vitality of being; the fact that 'one is' that provides the existential moment of identity. This is what Giddens (1991) referred to as 'self-identity' although he conveniently obscured the vital difference between the existential moment (I am) and its pragmatic manifestation (I am 'me').

The key problem we face in researching the role of identity is that it is impossible for us to go beyond the 'having' of an identity – we are limited, by the very nature of our engagement as empirical researchers – with the sense-data of our being in the world, which presupposes that one 'has an identity'. However, because we seek to establish an account of a reality that is, we are always looking to bridge that gap between having and being. This, in essence, is the work of identification. The first step of identification is to assume a correspondence between the 'I' and the 'me' and then to translate that 'me' into a number of categories that correspond to various social practices.

When we reconsider organisational process, and especially forms of mediation, we immediately notice that there is an ongoing flow of identifications taking place on a day-to-day basis. All organisational actions are to some extent embodied and the embodiment brings with it a reminder of the existential nature of being. It is through their bodies that organisational members activate themselves; and their bodies are embedded in actor-networks, together with a range of media-technologies and machines.

In the example of BBC East Midlands, the embodiment of journalism work is crucial. Radio journalists work with their voices; their primary environment consists of soundscapes. They are geared towards creating imaginary visual images that accompany the sounds; the matter of the medium that their message contains is visual, but only because it calls upon audiences to visualise what they hear. In contrast, the bodies of television journalists operate in a world that is very similar to the one we encounter everyday. It is a visual landscape. Television news is not geared towards a simple repetition of visuals, but of an attunement (bias) to feeling. Regional television aims to partake in the everyday feelings of people living in the East Midlands. This is why they are 'populist' and not just because they want to maximize audiences, but it is inscribed in the very logic of the medium (Cottle, 1993). For these journalists, TV is a sensing device; it feeds into our nervous systems..

It is from their own bodies-at-work that radio and TV journalists develop such different perspectives on what is 'good news work'; because they are embodied, these identifications are not strategic devices or group-markers, which we often encounter in organisational studies of identities (Martin, 1992). Instead they are lived; they are sentient, they are felt as real; and they resist externally imposed changes because these are deemed artificial and inauthentic. This is the fallacy of reification. Management cannot simply bring to life new, imaginary forms of being, because these do not dwell in authentic embodiments. This does not simply apply to people, but to technologies as well. Technological mediation is also embodied, in artefacts, usage and know-how. This is why we should never see technological change as instrumental but always ask what kind of embodiments are required to make such changes feasible?

Radio and television journalists operate differently; their professional differences, skills, perceptions, modes of reasoning etc are embodied differently. Radio journalism is geared towards the voice; its hourly repetition and focus on facts induces a form of depersonalisation. This explains why the radio voice is often so standardized. Personal identity markers are often discouraged; especially at the BBC which has an innate bias towards strengthening a highly corporate mode of identification rather than a personal-professional one.

Regional television news, however, favours a more personal touch. Reporters are often visualised themselves. One reporter, for example, was described as 'well known for plastering herself all over a story' and consequently often handed stories which

favoured such a personalisation. A peculiar fact that was mentioned by more than one senior journalist was that radio was generally seen by television journalists as a necessary first career-step. This suggests that television journalists perceive radio as being of lower value. For television journalists to be asked to return to do radio in the name of the Big Idea of Bi-Media could then be interpreted as a form of demotion. 'I've spent years doing radio, why would I want to go back there. I've been there; I've done that!' It is noteworthy that very few television journalists, if any, ever return to radio on a voluntary basis.

This is not the case the other way round. Most radio journalists did not object to joining a Bi-Media newsroom, affirming the suggestion that television journalism is deemed of a higher status. However, the problem here was the lack of necessary skills to make that crossover effectively. Where most experienced journalists have had to work for years to become established television reporters, it was now suggested that radio journalists (many of whom were not as long in the news business) could make the same leap almost instantly. For television journalists, then, Bi-Media represented a violation of their identities; a misrecognition of their professional expertise, their biographical histories and their approach to news-production. In contrast for radio-journalists, it produced unrealistic expectations and increased levels of stress and induced a sense of inadequacy.

The switch back to 'bi-media', as a system in which separate radio and television identities are affirmed and reinforced by technologies and organisational processes, avoids most of these tensions. For example, one correspondent told us that he 'has no problem in handing over my package to radio afterwards'. Following McLuhan, we could see why. The package remains a piece of television journalism only to be adapted to radio. There is no loss of identity here, as the being of television journalist is only connected to the television news product. The disembodiment of his voice for radio does not undermine this because his integrity has already been confirmed by the full package for television. He is not a bi-media journalist, but a television journalists who 'lends a hand' to the radio newsroom.

## CONCLUSION

Change management has to learn from its mistakes to become more effective. The Bi-Media *Big Idea* in the BBC East Midlands newsroom revealed quite a few basic mistakes of change management. Rather than bringing radio and television news

together into one effective and efficient smooth running news apparatus, the Bi-Media *Big Idea* intensified the internal oppositions between these two media and their practitioners.

Combining Media Theory and Actor Network Theory shows that the technological and mediated nature of news-work has profound implications for the way in which organisational processes function and are affected by change. Both approaches share a suspicion towards intentionalist modes of thinking that presuppose that ideas govern actions. Instead, they reveal that our own being is enframed by technological processes; our perceptions, anticipations, experiences and reflections are caught up in their mediated extensions. They thus generate a critical stance towards conceptions of 'management' as strategic interventions. Indeed, following this train of thought, effective managers do not attempt steer or direct changes; to manage well is above all a matter of being responsive to the changing nature of our human being as it is being re-engineered within complex technological constellations.

At the core of the problem of management, which both Medium Theory and Actor Network Theory reveal so clearly, is the process of reification. At BBC East Midlands, the management of Bi-Media was based on a fundamental loss of sensitivity to the emergent organisational processes. By relying on an instrumentalist notion of technology, the Bi-Media overhaul neglected the primacy of practical organisational activities and misrecognized the fundamental identification processes that have served actually existing bi-media practices during the previous decades and continued to serve them today.

This triple reification suggested that the 'plan', be it a protocol of technology-use, a design of work-processes or the establishment of staff-rota, which was used to operationalise the *Big Idea,* could at once *read* existing practices and *translate* them into new ones. However, plans never do that. Plans are hermeneutic devices that can help attune and orient specific attention to specific facets and highlight their links. Plans neither represent not constitute reality (Watson, 1994).

Since the failure of Bi-Media, BBC management has immersed itself in new *Big Ideas* such as the turn to PDP to get 'more cameras on the road'. Doubtless these *Ideas* will also not work out quite in the way they were intended, as history tends to repeat itself, unless it involves a self-critical reflexivity at the heart of a learning process.

Not all is lost, however, because at the BBC East Midlands, there is now a bi-media practice that does work. It is not a *Big Idea*, but a constellation of practical arrangements. This has become the more crucial as radio news has become less and less reliant upon its own reporters, and now often needs television journalists to provide 'live' sound bites of news events. Likewise, the demise of the news-organizer has generated a realisation that some aspects of that particular function had some usefulness and this recognition may spark further modifications of working practices to cover the loss.

Finally, the crucial role of embodiment, as the material anchor of identification practices, highlights the integrated nature of technologies, organisations and identities. Following McLuhan and Latour, we should now see that technological facilitation is never purely instrumental, but generates a specific *attunement* to how we perceive, conceptualise and live our being in the world. We embody technologies as media – as extensions of ourselves – in everyday settings. Organising work processes is first and foremost a practical arrangement, not an abstract one. It is here were effective change management beings.

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