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Promoting Mr. 'Chips': the construction of the teacher/computer relationship in educational advertising

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Abstract

The £1 billion government drive to integrate information and communications technology (ICT) into UK schools and colleges has been firmly focused on the technological transformation of the teaching profession. In particular, the establishment of a National Grid for Learning (NGfL) remains dependent on the successful 'selling' of ICT to teachers; many of whom have previously proved unwilling to use computers. In practice much of this task has been left to IT firms, eager to promote their products to a potentially lucrative educational marketplace. From this basis the present paper takes a detailed examination of educational computing advertising material currently being produced by IT firms in the UK. In particular it concentrates on how advertisements construct both the process of education and the teacher as a potential user of ICT. Four dominant themes emerge from this analysis: ICT as *problematic* for teachers; ICT as a *problem solver* for teachers; ICT as a *futuristic* form of education; and ICT as a *traditional* form of education. Despite the conflicting, and often contra-factual, nature of these four discourses the paper argues that educational computing advertising is consistent in its disempowering portrayal of the teacher at the expense of both the computer and IT firm. This 'demotion' of the teacher is likely to have negative effects on the way that teachers approach ICT as part of their professional routine, running contrary to the underlying aims of the National Grid for Learning initiative.

Keywords: Information Technology; Computers; Teachers; Advertising; Marketing

1. Introduction

After two decades of false starts and half-realised promises, substantial moves are now being made to integrate educational computing into UK schools and colleges. Under the aegis of the National Grid for Learning (NGfL) initiative the New Labour government have committed £700 million to the purchasing of computer hardware and software and, most crucially, aim to connect the country's 30,000 schools to the Internet and a host of officially approved on-line resources (DfEE, 1997, 1998). The principal tenet of this unprecedented drive has been the need to involve and, indeed,

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'transform' the teaching profession. One of the key aims of the NGfL is to ensure that, by 2002, all teachers 'generally feel confident and be competent to teach, using Information and Communications Technology within the curriculum' (DfEE, 1997, p. 24). Thus, alongside the £700 million set aside for establishing the NGfL infrastructure, a further £230 million of Lottery money has been devoted to providing Information and Communications Technology (ICT) assessment and training for all in-service teachers (TTA, 1998a), with ICT competency also made an integral part of the recently announced Initial Teacher Training National Curriculum (TTA, 1998b). As Lord Puttnam, member of the government's Education Standards Task Force, warned: "ICT *must* be seen as a function of *all* teaching, part of a joined up curriculum which serves … to help teach a child" (Puttnam, 1999, p. 4 emphasis added).

This renewed awareness of the influence of teachers reflects an uneasy history of technological adaptation by those in education (Cuban, 1986). Teachers have long been seen by many advocates of educational computing as a principal barrier to widespread integration of ICT in schools—as Bryson and de Castell (1998) put it, a major 'nuisance factor' to the otherwise smooth succession to the information technology revolution. A host of reports have 'proved' teachers to be either 'technophobic' about using ICT (e.g. Rosen & Weil, 1995; Brosnan, 1997); resentful of the 'threat' the computer poses to their professional status (Callister, 1986); or too rooted in out-moded pedagogic assumptions to change their ways (Gillman, 1989; Finlayson & Perry, 1995). Viewed from this perspective, teachers have long been seen by educational technologists to exhibit a range of obstructive behaviours from incompetence to sheer bloody-mindedness, doggedly resisting change in educational computing. The simplicity of this view is part of its attractiveness, whereas in reality teachers attempting to assimilate ICT into their practice have been hindered by a complex mix of barriers. The number of schools using ICT to good effect is a tribute to the persistence of teachers in spite of adverse conditions.

The present drive to change the working conditions, and ultimately the practice, of the teaching profession has not been solely based on government-led training programmes and targets. An integral part of the National Grid for Learning is the involvement of the private sector and, in particular, the IT industry. The NGfL initiative has been specifically designed to incorporate IT firms into the day-to-day running of the programme and, it is intended, open up a potentially lucrative educational marketplace to British businesses (Selwyn, 1998). In this way, IT firms are central to the efforts to shape the NGfL and the associated realm of educational computing. With the NGfL initiative effectively setting up a controlled marketplace, it has been left to IT firms to sell themselves and their products to the educational establishment in order for the goal of widespread use of ICT within schools to be realised. Thus, how ICT is being 'sold' to education by the IT industry via the media is of fundamental importance to the eventual use (or non-use) of computers in schools. As Leask (1998) points out, the (print) media remain one of the most significant external influences on the development of professional knowledge of teachers in the school system. National dissemination of new knowledge is, therefore, a crucial stage leading to the long-term embedding of innovative ideas in practice.

2. The importance of IT advertising and teachers' use of educational computing

As Bigum (1998) reasons, IT firms have needed to 'enrol' a host of actors in order for their business to become a success, ranging from parents and students to educational managers and administrators. However, the failure to include most teachers into this network has been seen as a major impediment to achieving a widespread use of ICT in schools. Indeed, as Haddon (1988) notes, IT companies have long adopted the discourse of the computer as an 'educational machine' to sell their products, but this has tended to be aimed towards the domestic marketplace and the home (parent) consumer. Thus computers have, until now, been mainly marketed as offering 'edutainment' outside the classroom. In this way, up until the advent of the National Grid for Learning, IT firms have tended to view the

school marketplace as fallow and unrewarding[1]. However, the considerable incentives that the Grid offers to the IT industry have rapidly led to the promotion of computing aimed specifically at the educational community and, in particular, the teachers on whom the initiative is initially focused (DfEE, 1997). As Selwyn (1999, p. 60) reasons, the teacher-focused marketing of educational computing plays an essential role in …

> convinc[ing] the 'consumers', upon whom [educational computing] is ultimately reliant of its viability and value to education. Making the ethereal tangible is therefore the first crucial task facing … the private interests responsible for constructing the NGfL

As well as laying the foundations of the Grid's longevity, the way that educational computing is marketed to educators plays a wider role in the 'construction' of teachers as computer users and is, therefore, a major influence on how teachers view their own professional identity (Weber & Mitchell, 1995). The ways in which technologies are described, the 'stories' that are told about them, have a profound effect on what we do and do not see in them (Bromley, 1997). It follows that the ongoing discourses emerging from both government and the IT industry both define and delimit how technology will be used by teachers and how teachers will then construct themselves as users of ICT. As Bryson and de Castell (1994, p. 200) explain:

> the discursive context of … practice in relation to educational computing is one in which sense is doggedly (even if contra-factually) made, in which seamless narratives attempt to tell true stories of how and why new technologies are to be harnessed in the service of educational ends, and about the prospects and pitfalls therein.

These authors go on to argue that educators should, therefore, question the assumptions presented to them about educational computing as 'fact' and ask what agendas they are attached to. From this basis, by examining the 'true stories' being told about education through IT advertising, we can begin to understand how computing is being pre-defined before it reaches the classroom.

Given the uneasy historical relationship between teachers and ICT, the remainder of this paper considers how teaching staff are being portrayed and constructed by IT companies. In particular we examine newspaper and magazine advertisements as sites where 'teacher' and 'educational computing' are defined. In this way, we aim to identify the stories which are being told about teachers and computers and the likely consequences such dominant discourses may have on teachers' subsequent perceptions of ICT.

3. Examining educational advertisements: uncovering dominant themes and discourses

Our analyses of educational computing advertisements are the result of asking two main questions about their pictures and texts. First, how do the advertisements represent teachers — what kind of people are the teachers of the advertisements? Second, how do these representations appear to 'position' teachers in relation to technology, students, and the IT firms themselves? In making these analyses, we are drawing on the emerging traditions of discursive psychology (for example, Potter & Wetherell, 1994; Edwards & Potter, 1992) and linguistic discourse analysis (for example, Cook, 1992; Goodman, 1996; Kress & van Leeuwen, 1996).

Discursive psychology is predicated on a strong assertion that most, if not all, language in use is essentially rhetorical — concerned with the pursuit of the interests of the speaker or writer through its persuasive or coercive influence on others. While the rhetorical function of advertising is obvious, the discursive psychology approach is nevertheless useful for directing our attention to the ways that the language of the advertisements appears to us as interested readers (or even potential customers), with the aim of persuading us to 'join in with'

[1] A recent indication of this continuing belief within the IT industry was given in the trade journal '*Business and Technology*' in September 1998. This news item proclaimed 'Education Slow Learner in PC Sales', reporting that the 'education sector remains one of the slowest areas for PC growth in the UK' (p. 5).

a certain representation of situations, problems and solutions. In the advertisements we have considered, advertisers have an interest in both 'tapping in' to teachers' existing perspectives on ICT, and also in encouraging teachers to see things from the advertiser's perspective (at least, as interpreted by their advertising agent). Discursive psychologists are interested in how language is used as a 'semiotic technology' for breaking down experience and reassembling it as presented knowledge (Edwards & Pottar 1992). We are interested in how that semiotic technology is being used to sell specific ICT products, and thereby the wider value and role of educational technology, to teachers.

The kind of linguistic analysis we are drawing on is that in which linguists like Cook, Kress and Goodman argue that the meaning of most texts for a reader is achieved not only through language but through the *multimodality* of their discourse — the combined effects of language and non-linguistic visual features (including text design and font, as well as illustrations). Cook, in particular, has suggested that advertisements are a particularly 'restless discourse', in constant flux as the creative members of the advertising industry respond to changes in society which they treat (consciously or otherwise) as relevant to their aims. We have therefore tried to reveal how the multi-modal features of the selected advertisements embody their creators' interpretation of salient contemporary cultural images of both the *process of education* and also of *the teacher as a potential or actual user of ICT.*

In order to examine a representative range of educational computing advertising, this paper concentrates on the literature surrounding the UK Educational Technology Show BETT 1999. The annual BETT trade show attracts up to 400 IT companies and is widely seen as the highlight of the British educational ICT calendar. The week of the show is an occasion for most of the educational press to produce Technology supplements. To this end BETT week represents the largest concentration of educational IT related advertising during the year. The remainder of this paper therefore examines the advertising within three key BETT publications: the official *BETT show guide*; the 72 page *Times Educational Supplement* 'Online' section and the 28 page '*educ@guardian*' publication.

These three publications featured a total of 57 advertisements directly relating to educational use of ICT; after excluding advertisements which had been replicated across the three publications a total of 42 separate advertisements were found. These 42 advertisements were the focus of a detailed content analysis concentrating on the combined effects of the advertisements' language and non-linguistic visual factors (including photographs, illustrations and textual design). After independent analyses by the three authors, four dominant themes emerged regarding educational computing and the role of the teacher: ICT as *problematic* for teachers; ICT as a *problem solver* for teachers; ICT as a *futuristic* form of education; and ICT as a *traditional* form of education. Thus, all but six of the 42 advertisements could be said to contain elements of one or more of the four themes. These themes are now explored in detail by grouping examples of the advertisements in terms of their representation of the four rather different images of teaching and technology. The following descriptions have been selected merely as exemplars of each rhetorical style; being full or half-page advertisements from (inter)national IT companies with extensive use of images and language. As such they were chosen as representing the essence of the four themes, although their portrayals of teachers and ICT are representative of the wider sample.

4. Four visions of the educational computing/teacher relationship

4.1. ICT as a 'headache' for teachers

The first 'story' of educational computing pursued by IT firms was the promotion of ICT as a problem for the teacher and was prevalent in 6 of the 42 examined advertisements. In this 'ICT as Headache' theme the computer's problematic associations are tackled head on; as Wernick (1991) puts it, 'naming the negative'. This approach is exemplified in the following three advertisements.

4.1.1. Classroom networks just got simpler (*Viglen*)

A small picture shows two computers. One is being used by two students who are smiling at the

screen. Behind them stands a slightly overweight male with sideburns, a suit and a loud tie: obviously a teacher. He remains, however, a bystander. The classic triangle 'Teacher – Subject – Learner' has a new element – 'Technology' – which in this scenario usurps the role of the teacher and allocates to him the role of onlooker. Questions concerning the nature of learning and the desirability of technology in supporting it remain unasked and unanswered. The novelty of the medium and its high-tech interactivity are enough to reassure the reader that it must be a good idea.

The phrase in red across the page is, 'Classroom networks just got simpler'. After this, the word 'simple' appears six times, and the word 'easy' three times. However, the small print begins 'Being in charge of school networking can be a real headache'. This phrase has two functions — to introduce a pseudo-insider acknowledgement that technology creates problems in schools and to clarify another new role for the teacher — as a technician in charge of networking. Having set this up as a problem (better done by real technicians but unfortunately schools are stuck with teachers) the company naturally goes on to offer the ubiquitous 'total solution'. Mindful that teachers might wonder then what remains for them to do, the text stresses that teachers will have 'total control' with 'the minimum of training'. That is, all teachers have to do is stand by while their smiling students flick through successive bright images 'at their own pace'.

4.1.2. Don't let the national grid for learning become a headache .... (DAN)

Seven small pictures of high-specification computers form the border for the text, which is predominantly black and blue, with one word, 'headache', in red. As in the Viglen advertisement, the NGfL is presented as a problem. At least, it is easy to infer that (inept, technically incompetent) teachers might well find it so. Having established the problem, DAN sets out to remedy it. 'Solution' appears four times. The headlines contain the word 'you/your' (the owner of the problem) five times, and 'we/our' (the owner of the answer to it) three times. In this 'businesslike' approach, the most telling claim is that the DAN system '... allows pupils access to programs allocated by their teacher *through a single icon*'. The hope is that even teachers can be trained to manage that.

4.1.3. Three strangers sent e-mail to your child today … thankfully mailgear delivered only two (ICL)

The concern of this advertisement is to show that ICT is dangerous, particularly in allowing strangers contact with pupils through e-mail. Three strangers (who 'sent e-mails to your child today') appear here in silhouette, looming over a boy using a computer. One is a woman with folded arms, and the others are men, one young and the other of considerable stature. There is no indication which of these shadowy adults sent inappropriate mail, but the message is that schools (teachers) leave children vulnerable. On the other hand, the software being advertised can protect. In the school of the future, people will be the threat, and technology will be the guardian.

Teachers preparing to link up their classrooms to the Internet may be aware that it has evolved as a disparate 'virtual world' with its own ethos; not a separate world but part of the social world that created it. As such its development for and by a particular section of society has determined its direction (Jones, 1997; Spender, 1995; Turkle, 1996). That direction has not been towards educating school children, or ensuring that they are protected from inappropriate material or contacts. In this way, the advertisement is playing on a common fear among educators and parents alike — highlighting yet another 'headache' for teachers to deal with. Companies marketing security software simultaneously highlight this fear and offer a particular 'solution'. Yet, viewed together, such advertisements present ICT as something that must be 'dealt with'; as a series of obstacles rather than a facilitator. Although 'naming the negative' is not a rare marketing strategy, it sits uneasily with many of the other stories being told about educational computing.

4.2. ICT as a solution to teaching problems

Indeed, a second prevalent theme to the promotion of ICT reverses the sign of 'ICT as Headache'

and, instead, presents educational computing as providing 'solutions' for teaching and learning. This approach was reinforced throughout 16 of the advertisements and is highlighted in the following three examples.

4.2.1. Automatic data capture (*datasimplex*)

This advertisement sets out to tell the teacher that ICT can provide them with the capability to 'mechanise' many tasks. So, the advertisement takes a range of the teacher's administrative work (marking, enrolment, questionnaire processing) and offers systems which can take over. Five tasks teachers may do are presented as questions, such as 'Isn't it about time you used the latest technologies to do your markings (sic)?'. Next to each question is a box with a cross in it. Teachers are getting it wrong. They still use paper and pens. Perhaps the most loaded question is 'Still doing Class Registers manually?'. Almost all teachers must have to answer 'yes' to that. Yet they get a cross — and so are wrong again.

4.2.2. Consider the next generation (*Longman*)

A girl and a computer screen stare intensely at each other. She leans forward and is absorbed. This advertisement promises that 'EVERY child can achieve their full potential.' What is needed to guarantee this state of affairs is a school where pupils are 'stimulated by rich, multimedia learning content' and where teachers 'create individual learning programmes' for them. The teacher again is technician in this school, and learning is synonymous with accessing electronic information. The words 'tomorrow's promise' (twice) presumably refer to the promise of youth, and to futuristic visions for ICT. 'Consider the next generation' is the exhortation here, again neatly referring to both young people and rapidly evolving technology. Thus, this advert suggests that reliance on computers will allow teachers to become relevant and up-to-date and, most importantly, to rectify their failure to ensure pupils achieve the best results possible.

4.2.3. It makes teaching child's play (*tiny*)

Three cartoon urchins are using 'Back to Basics' British history software. On closer inspection, whilst two of the students are studying 1066 'and all that' the third seems to be mistakenly reciting French sentences. Responsible for this error would appear to be the teacher ('Why waste time waiting for everyone in your class to load up the right programme?'). The 'solution' to this problem is to use a Network Manager. The technology has become both manager and teacher in this scenario, and the teacher is the (ineffectual) technician. To reduce mistakes and interference further, the computer offers even more help: 'Allows you to start the software [...] at the same time. Without you leaving your desk.' Confined to quarters, the disempowered teacher may like to consider the final phrase of this advertisement: 'Network Manager — It makes teaching child's play'. Teachers will no longer have to make heavy weather of this straightforward task. Technology is the solution.

The notion of technology providing a 'technical fix' for many of society's woes has been long established (Weinberg, 1966; Volti, 1992) and has proved particularly pervasive amongst educational policymakers and administrators, becoming what Robins and Webster (1989, p. 1) term 'the great educational orthodoxy of our time'. What is prevalent throughout these three selected advertisements is the all-encompassing nature of the technical fix that ICT will have on the teaching/learning process. From mundane administrative tasks to issues of discipline and control, ICT is presented to teachers as providing easy solutions. Most common to this theme is the approach of the second advertisement (4.2) which offers a 'total fix' to the learning of students. How this is to be achieved beyond the use of the software concerned is unimportant; the ability to allow *every* child to reach his/her *full* potential positions ICT as the ultimate solution to the educational process.

4.3. ICT as a new, futuristic form of education

Another 'story' of educational computing pursued by IT firms was the promotion of ICT as somehow creating a new, futuristic form of teaching and learning. This 'revolutionary' theme was prevalent in 10 of the advertisements and is illustrated in the following two examples.

4.3.1. Future school: the new era of teaching and learning (future school)

Future School's graphical images are arranged on top of turquoise cubes that are viewed from above. The initials FS and the words 'Future School' are framed by an explosion of light, and the underlining of 'FS' is given more urgency in the form of a blip akin to a heart monitor. Beneath this there are faint silver lines which form a grid. There are pictures of two smiling girls and one smiling boy; one boy and one girl using computers; two grey-haired men in shirts and ties using Whiteboards to display mathematics; and an extra-terrestrial finger making contact with a screen. There are also images of computer chips, a CD-ROM and mathematical symbols. The words '*grammar*', '*noun*' and '*verb*' appear — grammar most prominently, linking the shiny vision of the future with the lost standards of the past.

The Future School offers 'qualified teachers in full screen' and 'live teaching'. While the pupils are working with headsets to reduce distraction, teachers are freed to do their work in the future school, which is to 'customise the system for each child'. This new role of teacher as technical support assistant is endorsed by a Head Teacher's testimony: 'The system releases the teacher and enables her to spend more time supporting pupils without distracting others'. Put another way, the teacher has more time to carry out the task of 'positioning' weaker children at their correct level. The implication is that the 'traditional' teacher wrongly distracts children by talking to others in the room. This idea of the teacher as 'interfering' with the natural learning of children has strong affinities with the 'progressive' and 'discovery learning' tradition of education, which drew on the child development theory of Jean Piaget (as discussed, for example, by Edwards & Mercer, 1987). Tellingly, Piagetian progressivism has long been a strong influence in the world of educational software design, particularly in the work of its most prominent 'guru,' Seymour Papert (1980, 1994).

4.3.2. Realising potential (NTL)

This advertisement is for a telecommunications company. On a grid, four words appear in soft focus — '*voice*', '*data*', '*vision*' and '*Internet*'. Voice and vision are both aspects of human sensory systems, and as such we also use them metaphorically: 'voice' means to 'have a say' or communicate; 'vision' means either to visualise what is abstract and/or in the future, or simply to imagine. 'Data' and 'Internet' are technical, to do with information and connections, respectively. This linking of human and machine gives the text a cybernetic quality. Having established this futuristic feel, the text then harks back to 1999 as the year 'when the real potential of electronic media in education will begin to be realised.' This generates some urgency for those teachers still attempting to decide which PC will give them value for money.

The advertisement then offers a facility to 'allow learning to take place where and when it's convenient for the student'. Thus at a stroke not only teachers but entire education systems are rendered invisible. Learning becomes a dip-in leisure activity, with a main concern of student convenience. What constitutes learning, how people learn and to what purpose, is not considered here. The new links between computers can transfer information, and therefore learning will take place. It then becomes evident that the three words 'data', 'voice' and 'Internet' are in smaller type than 'vision' and are positioned around it. The 'vision' is that of everyone connected. The implication is that the entire potential for students' learning is about to be realised; whereas actually the potential to connect electronic media is all that is possible for this company. The connectivity solution promises to 'meet the educational demands of the future, today'. What those demands may be are not specified, and how they are met by linking computers is not clear.

Promoting the futuristic connotations of ICT is, of course, a well-worn approach to marketing computers. Yet, as these two examples suggest, this futuristic theme is as vague as it is forward-looking, offering little tangible explanation beyond the apparent inevitability of the technology. As Davidson (1992, p. 42) argues, in pursuing a futuristic agenda "computer [advertisements] have never really tried to broach the question of what, precisely, are the benefits on offer, and have instead opted for the darker proposition that not only are they

inevitable but that anyone without [technology] faces certain extinction".

4.4. ICT as a traditional form of education

4.4.1. *National Grid for Learning? join here >* (*research machines) and National Grid for Learning? It's just a tool* (*research machines*)

As if to distance themselves from the previously discussed 'futuristic' theme, an alternative set of advertisements ($n = 4$) were concerned with presenting ICT as a 'traditional' form of education. In this way, these two advertisements from the UK's largest educational IT firm focus instead on the technology of the wheel and the toothbrush. The first advertisement is set in the back garden of a 1930s semi-detached house where two children deal with a bicycle. They wear trainers, the bicycle is a modern-day mountain bike and the girl is 'fixing' it. The text, positioned in a Windows 98-style drop-down menu, tells us they are undertaking three activities: teamwork, problem solving and having fun, and directs us to consider these in relation to the statement: 'There's nothing new about the National Grid for Learning'. The second advertisement, set in the same style, features a half-naked child perched by the side of a bathroom sink tentatively brushing his teeth. The by-line here adopts a similar tone; "The National Grid for Learning? It's Just a Tool".

By linking teamwork, problem solving and having fun, the advertisers are using a standard rhetorical technique beloved of politicians, preachers and other professional persuaders — the 'three part list' (cf. the Holy Trinity and 'the third way'). As empirical studies by Atkinson (1984) and others have shown, faith in this triadic structure is well justified in terms of its impact on audiences. The text reassures teachers that they need not change the (Government imposed) curriculum, 'but changing how it's done could mean it's learnt more effectively.' This reprimand plays upon the underlying anxiety many teachers experience during external evaluation of what teaching is measurably efficient. Having wrong-footed the teacher, the text goes on: 'To learn more, talk to RM'. The teacher is clearly positioned as novice and the computer company as expert.

These advertisements employ the very familiar, childhood technologies of the bicycle and the toothbrush in order to rekindle feelings towards technology not necessarily associated by teachers with the computer. As Wernick (1991, p. 69) notes, reassurance and a linking with more familiar technologies has been an oft-used strategy since the early years of IT marketing: "The surface meaning is plain. New technologies may upset old ways, but there is no need to worry for computers will become as banally ordinary as [old technologies], their benefits just as self evident — and all this through the natural passage of time". Beyond the surface meaning, both advertisements employ a persuasive use of signs. The bicycle signifies using ICT as being 'as easy as falling off a bike' — an initially daunting but quickly learnt process. In the same way, the pairing of the infant and toothbrush as signifiers evokes childhood 'rites of passage' and habits which unconsciously become integral to our day-to-day routines. Yet, despite this low-tech discourse, both scenes are placed within a Windows 95 environment with superimposed drop-down menus and dialogue boxes. The case is, therefore, very strongly made that all this tradition and child-centred, humanistic activity is somehow 'inside' the computer all along.

Both these advertisements conclude with the rejoinder 'National Grid for Learning? Join here > RM'. The interesting feature of this text is its framing of the National Grid for Learning as a question. The question mark is highly significant, tapping into teachers' potential unease or unfamiliarity with what is, after all, a very nebulous concept. The question has an implied subject which could be any of several things: 'What is the NGfL?', 'Panicking about the NGfL?', 'Excluded from the NGfL?' or even 'Ever heard of the NGfL?'. Having depicted educational computing as a traditional form of education, both advertisements bring the teacher back to the problem of the present by posing this question without revealing its ambiguous nature. The implication is that pressing the RM 'button' will meld past, present and future, bypassing the need for teachers to worry or be professionally involved.

5. Discussion

Although advertising styles and approaches change rapidly, it is interesting how these four themes remain prevalent throughout the current NGfL drive. Indeed, further analysis of the subsequent 9 months of the Times Educational Supplement '*On-line*' supplement reveal that these portrayals of teachers and ICT are enduring (see Table 1). So, given the apparent pervasiveness of these themes, what implications do they hold for the increased use of ICT in UK education?

As Bromley (1997) argues, information technology has continually been sold to educators via an amalgam of conflicting stories and it would seem that, despite the renewed impetus of the NGfL, current ICT advertising remains as ambiguous as ever. As this paper has highlighted, many of the stories being told to teachers about educational computing by IT firms differ and are, in some cases, contrafactual. For example, whereas some texts stress the radical 'futuristic' nature of ICT, others argue for the heritage of the computer in the lineage of 'traditional' teaching methods. As we have seen, the promotion of ICT as a 'technical fix' in the classroom remains another popular discourse. Yet this is countered by the equally prominent portrayal of ICT as difficult and problematic, especially for teachers who as a profession are perceived to avoid 'technical knowledge'.

In particular, many of the advertisements discussed in this paper convey conflicting messages regarding issues of control and power relationships between the teacher and the computer. Whereas many of the advertisements are, at first glance, concerned with the benefits that the teacher can derive from using ICT, it is interesting to note the agency given to the computer over and above the teacher. This is especially apparent throughout the two texts from ICL (4.1.3) and Tiny (4.2.3), which stress the apparent control over students that ICT affords. Whereas on first reading ICT allows teachers 'to maintain total control' and 'monitor each student', it is in fact the computer that is ascribed power ('Thankfully Mailgear delivered only two') to the ultimate detriment of the teacher's status ('Network Manager — It makes teaching child's play).

Such anthropomorphism of technology has been a common theme in IT marketing yet, as such, serves to disempower and 'deskill' the teacher. One of the most ardent proponents of the deskilling thesis in education has been Michael Apple who, alongside Susan Jungck, has been quick to use educational computing as a prime example of this debilitating trend on the teachers' work. Thus, educational computing is seen as part of an on-going trend of standardisation, rationalisation and proletarianisation of teachers' jobs. As Apple and Jungck (1990, p. 228) posit:

> rather than moving in the direction of increased autonomy, the daily lives of teachers in classrooms in many nations are becoming ever more controlled, ever more subject to administrative logic that seeks to tighten the reins on the processes of teaching and curriculum … reductive accountability, teacher evaluation schemes and

Table 1
Advertisements in *Times Educational Supplement Online*; January–September 1999

Issue date	Theme				
	Problematic	Problem solver	Futuristic	Traditional	Other
January 1999	7	8	2	2	—
February 1999	5	2	2	1	—
March 1999	3	2	1	1	1
April 1999	3	4	1	—	1
May 1999	5	8	1	1	1
June 1999	6	6	—	1	2
September 1999	2	9	3	1	3

> increasing centralisation have become so commonplace that in a few more years we may have lost from our collective memory the very possibility of difference.

In this way, the imposition of the computer into the classroom is seen by these critics as the epitome of centralisation and standardisation of teaching — in essence the taking away of control from the teacher. Computers are seen as a means of delivering a 'canned' or pre-packaged curriculum (Apple & Jungck, 1990) of which the teacher has little or no control — a 'curriculum-on-a-cart' that teachers must defer to. However contentious this view may be, it would seem to be reinforced by many of these advertisements.

Nevertheless, if some texts appear to perpetuate this 'deprofessionalisation' thesis, a contradictory theme is developed by advertisements challenging the professionalism of those teachers *not* using ICT. For example a pressure is exerted not to be seen as a teacher who is 'still doing class registers manually'. Another advertisement in one of the three publications used the headline: 'Professional Teachers Need Professional Equipment'. This approach relies on the teacher's understanding and acceptance of the technology as a communicator; conveying meanings through its own inherent qualities (Leiss, Kline, & Thally, 1986). Here, at least, teachers are exhorted to approach ICT as a 'high status' good. The inferences from both these examples are equally clear and draw from another recurring discourse of educational computing; that only the 'effective' teacher is able to 'meet the challenge' of IT (e.g. Katterns & Haigh, 1986; Finlayson & Perry, 1995). This attempt to create an imagined 'peer' pressure for teachers to get up-to-date and enhance their professional status with ICT remains strongly at odds with the previous theme of the computer displacing the teacher.

Despite such contradictions most advertisements are consistent in their positioning of the (expert) IT firm in relation to the (novice) teacher. As we discussed earlier, a significant number of the advertisements adopted the 'ICT as headache/firm as solution' discourse, implicit in which is the notion that the demands of the recent ICT policy initiatives are more of an unwanted hindrance to teachers, potentially preventing them from getting on with the 'real' aspects of their job. Such a strategy is obviously aimed at the 'majority' of teachers identified by the government as currently lacking familiarity with ICT and contrasts sharply with conventional paradigms of (non-educational) IT advertising which has traditionally concentrated on technological prowess and capability and, to a large extent, has been aimed at established computer users (Weinstein, 1998).

Yet, portraying educational computing in such an alien and unfathomable light *whilst* offering their products as the logical and easy solution, prompts these advertisements to redirect any responsibility and control away from the teacher and towards the IT firms who can provide 'industry standard' and 'total solutions'. Thus educational computing is depicted as best left to 'the experts' rather than the educators. This approach also conveys the message that IT firms have no other motivation than to act as altruistic and neutral guides. Indeed, this concurs with Dietrich's (1997) observation that private businesses are often reluctant to reveal the nature of their involvement with public telecommunications programmes beyond ensuring that their names are synonymous with the technology.

6. Conclusion

Advertising is most powerful in setting the agenda of what is, and what is not, important to evaluate (Zimbardo & Leippe, 1991). In this way, given the rapid diffusion of print and broadcast media over the last 50 years, advertising now represents a 'privileged form of discourse' about our deepest concerns in both society and education (Leiss et al., 1986). As Cook (1992) argues, in an educational setting advertising therefore remains a powerful stimulus for discussing and defining the most urgent and pertinent issues of the moment. In highlighting the narrow and limited construction of the teacher/educational computing relationship in current advertising we have attempted to demonstrate how IT firms are deliberately 'shaping' ICT before it enters the classroom. That is not to argue

that the advertisements discussed in this paper will necessarily lead to teachers conforming to such agendas. Teachers are perfectly capable of dismissing miscalculated rhetoric. Our concern is that, with the lack of any opposing empowering discourses, the construction of educational ICT by the IT industry will gradually become accepted by many teachers, particularly those with less experience of classroom computing, as a 'true story'. As Wernick (1991, p. 23) contends, to accept the assumptions that advertising makes is to accept the values it presupposes; "by representing such values as just part of the visual furniture the ad[vertisement] neutralises them, and to that extent reinforces their hold".

As we have shown in this paper, the bulk of current advertising by IT firms reproduces traditional, determinist discourses about teachers and computers, reducing rather than expanding notions of educational computing. In doing so IT firms are content to rely on accounts of teachers and computers that have persisted since the early days of the 'microcomputer' in schools. Continuing emphasis on the discourses of ICT as a 'technical fix' for education, of ICT taking control of the educational process or of ICT as a 'headache' for teachers, indicates a conservative approach on the part of the IT firms in (re)defining the teacher/computer relationship in the light of the recent policy imperative. Yet, in many ways, successful redefinition of the teacher/computer relationship is exactly what the National Grid for Learning is attempting to achieve. Without this profound change, the outcomes of the NGfL initiatives remain uncertain. The government have regularly stressed the need for teachers to develop a critical understanding of ICT. As the Chief Executive of the Teacher Training Agency recently espoused:

> This is not just about ICT skills — it's about ensuring that teachers know how to make best use of the massive potential of technology as part of their everyday teaching. It's also about ensuring that teachers know when and when *not* to use ICT (TTA, 1998c, emphasis added)

Thus, in the eyes of the government, the future of ICT in schools is intrinsically built around the involvement of teachers, who should be legitimate participants in the construction of their relationships with educational computing. This accords with Bigum's argument (1997, p. 256) that teachers should be at the centre of deciding "about what machines *ought* to do and what remains teachers' work". So, rather than blindly 'complying' with external agendas, a teaching force 'reprofessionalised' by the NGfL initiatives may be equipped to recognise the agendas of IT firms and avoid accepting them at face value, instead negotiating the assimilation of ICT into their work practices on their terms. To achieve this teachers must develop a critical understanding of ICT. This is not to assume that teachers' views of technology need to be 'fixed' from above (Kerr, 1991) but that teachers need to be aware of their unique importance in negotiating the role that educational computing can play in their classroom.

As we have shown, despite such needs present advertising of educational ICT is persisting in *decreasing* the role and importance of the teacher at the expense of the computer and, indeed, the IT firms. In marketing educational computing IT firms are persisting in *demoting* rather than *promoting* the role and status of the teacher over the role and status of the technology. If such an approach persists it is difficult to see the unhappy status quo of the past ineffectiveness of educational computing in the classroom being radically altered.

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