RE-ENGINEERING CONSTRUCTION: GOING AGAINST THE GRAIN

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Abstract

This paper adopts an overtly critical perspective on ‘re-engineering construction’. It is contended that re-engineering is impossible to define in terms of its substantive content and is best understood as a rhetorical label. In recent years the language of re-engineering has heavily shaped the construction research agenda. The declared goals are to lower costs and improve value for the customer. The discourse is persuasive because it reflects the ideology of the ‘enterprise culture’ and the associated rhetoric of customer responsiveness. Re-engineering is especially attractive to the construction industry because it reflects and reinforces the existing dominant way of thinking. The overriding tendency is to reduce organisational complexities to a mechanistic quest for efficiency. Labour is treated as a commodity. Within this context, the objectives of re-engineering become ‘common sense’. Knowledge becomes subordinate to the dominant ideology of neo-liberalism. The accepted research agenda for re-engineering construction exacerbates the industry’s problems and directly contributes to the casualisation of the workforce. The continued adherence to machine metaphors by the construction industry’s top management has directly contributed to the ‘bad attitudes’ and ‘adversarial culture’ that they repeatedly decry. Supposedly neutral topics such as pre-assembly, partnering, supply chain management and lean thinking serve only to justify the shift towards bogus labour-only subcontracting and the associated reduction of employment rights. The continued casualisation of the workforce raises real questions about the industry’s future capacity to deliver high-quality construction.

In order to appear ‘relevant’ to the needs of industry, it seems that the research community is doomed to perpetuate this regressive cycle.

Keywords: re-engineering, lean construction, enterprise culture, neo-liberalism, casualisation, private finance initiative
Introduction

It would be easy to dismiss ‘re-engineering’ as a passing fad had it not been central to the construction industry’s management discourse since the mid-1990s. The metaphors of re-engineering clearly captured the imagination of industry leaders and researchers. Despite the fact that business process re-engineering (BPR) has long-since been discredited within the broader management literature, its popularity within the construction sector continues relatively unabated. The arguments presented in this paper are shaped by a sense of unease regarding the one-sided nature of the current debate. An explicitly critical orientation is adopted to challenge the assumed neutrality of re-engineering. The meaning of ‘re-engineering’ is investigated and the influence of its rhetoric on the construction research agenda is demonstrated. The rhetoric of re-engineering is linked to that of the ‘enterprise culture’ as promoted by government throughout the 1980s and early 1990s. Changes within the construction labour market over three decades are addressed with reference to the guiding ideological framework. Consideration is given to similar trends in the public sector initiated through the Private Finance Initiative (PFI). Finally, the issue of empirical evidence is addressed. In contrast to the conventional discourse on re-engineering, it is contended that the developed critical argument engages with the day-to-day reality of the construction industry. Given the broad scope of the topic, the discussion is predominantly directed at the UK context. Reference to other countries is made as and when considered relevant.

The adopted theoretical position reflects the emerging tradition of 'critical management studies' (CMS) (Alvesson and Willmott, 1996; Alvesson and Deetz, 2000; Burrell, 2001; Fournier and Grey, 2000). Within the broader domain of
management studies, CMS has enriched academic debate and provides an important counter-balance to the heavy managerialist bias within the business school environment. In contrast, CMS has to date received little recognition within the construction management research community. The development of a critical perspective on ‘re-engineering construction’ provides an essential corrective to the grossly one-sided nature of the current debate. While it is recognised that critical work is frequently equated with the Frankfurt School (Held 1980), the authors make no claim to be consistent with any single tradition of critical thought.

Re-engineering construction

It is possible to assign two meanings to the expression ‘re-engineering construction’. The first is exemplified by sources such as Betts and Wood-Harper (1994), McGeorge and Palmer (1997) and Mohamed (1997). The overriding concern is how to apply Hammer and Champy’s (1993) recipe of ‘business process re-engineering’ (BPR) to the construction industry. The overriding assumption is that BPR has already been successful in other industrial sectors that are supposedly more advanced in terms of their management thinking. The challenge is how to apply the allegedly proven technique of BPR to the fragmented and project-based construction industry.

There are a number of difficulties with this approach. Firstly, BPR defies universal definition. The terminology is vague and imprecise such that it is impossible to distinguish re-engineering from other management improvement recipes (Jones, 1995). Empirical work by De Cock and Hipkin (1997) compared the implementation of BPR to total quality management (TQM) concluding that the concepts can only really be distinguished in terms of the rhetoric in which they are presented. Despite such problems regarding lack of definition, BPR has earned a reputation for its ‘slash
and burn’ approach (Buchanan, 2000). An extensive literature associates BPR with regressive approaches to human resource management (HRM) (e.g. Grey and Mitev, 1995; Grint and Willcocks, 1995; Mumford and Hendricks, 1996; Willmott, 1995). Indeed, the only aspect of BPR that appears to be constant is the quest to secure greater output from fewer employees.

The second interpretation of ‘re-engineering construction’ owes no specific allegiance to the vague dictates of Hammer and Champy (1993). This broader interpretation is reflected in the apparent diversity of topics addressed in this special edition of Building Research and Information. Re-engineering construction becomes a rhetorical label that embraces a wide range of allegedly ‘new’ management ideas such as pre-assembly, lean construction, supply chain management and partnering. As such, it could just as easily be labelled ‘re-thinking construction’ or ‘re-valuing construction’. Both alternatives are equally meaningless and are better understood in terms of their rhetorical appeal rather than their substantive content. Indeed, it will be argued that if read as ideological constructs, the two meanings of ‘re-engineering construction’ are identical, irrespective of the strength of allegiance to the guru-hype of Hammer and Champy.

**Re-engineering rhetoric**

Despite the lack of any supporting evidence, opinion shapers in the UK construction industry readily adopted BPR as the solution to the industry’s problems. The 1995 Technology Foresight Report (OST, 1995) was especially enthusiastic:
“....re-engineering of basic business processes to provide “lean”, rapid and effective performance is now commonplace throughout other industries but rarely occurs in construction”.

The introduction of such ‘advanced business techniques’ in construction was further exhorted as a matter of urgency. In retrospect, the faith placed by the authors of the Technology Foresight report in the overblown hype of management gurus such as Hammer and Champy (1993) seems almost comical. To many at the time it seemed like common sense. The language of BPR was further imposed on the construction research community by the Innovative Manufacturing Initiative (IMI):

“Business processes may be viewed as those procedures, practices and methodologies that companies use in employing their assets to gain competitive edge in the translation of raw materials into finished products which satisfy the customer/consumer demand in the market place. This approach is used within the IMI to identify the manufacturing challenges and research priorities.......to improve industrial competitiveness.”

(EPSRC, 1994)

The IMI programme accounted for a significant proportion of UK construction management research spending in the latter half of the 1990s. The adoption of a ‘business process approach’ therefore became an essential requirement in the search for funding. Academics became skilled in presenting their research applications in the required rhetoric. The ‘best practice’ reports of the time were further notable for their uncritical acceptance of BPR (e.g. Construct IT, 1996; Construction Industry Board,
1996). Such tendencies were by no means limited to the UK. For example the *Building for Growth* report (Commonwealth of Australia, 1999) cites process re-engineering as an essential element of process innovation.

With the exception of the current CIB initiative, it is notable that research agendas and policy documents have recently dropped specific references to re-engineering. There is as yet no sign of any apology for previously misdirecting the efforts of the research community. Indeed, the confidence of policy makers in instrumental management techniques remains remarkably intact. For example, the Egan Report (DETR, 1998) gave unequivocal backing to ‘lean thinking’:

“We are impressed by the dramatic success being achieved by leading companies that are implementing the principles of ‘lean thinking’ and we believe that the concept holds much promise for construction.”

As had been the case with BPR, policy makers were much less impressed with the extensive critical literature. They seemingly lurch from one panacea to another. However, the broader ideological construct remains intact.

**From re-engineering to lean construction**

To demonstrate the seamless transition amongst policy makers from BPR to lean thinking it is useful to quote again from the Egan Report (DETR, 1998):
“Lean thinking presents a powerful and coherent synthesis of the most effective techniques for eliminating waste and delivering significant sustained improvements in efficiency and quality”.

The phrase ‘lean thinking’ can be directly replaced by ‘re-engineering’ without requiring any further adjustment. Lean thinking shares many of the characteristics of BPR and hence is susceptible to the same critique. They are both rooted in the same ideological discourse. Whilst a universally accepted definition of ‘lean construction’ remains illusive, it is clearly inspired by the practice of lean production within the automotive sector. The definition of lean production is itself contentious and is best understood as a complex cocktail of ideas including continuous improvement, flattened organisation structures, teamwork, the elimination of waste, efficient use of resources and co-operative supply chain management. The seminal description provided by Womack et al (1990) draws heavily from Japanese management practices and the Toyota manufacturing system in particular. Organisations are conceptualised as profit-making machines where success depends only upon efficiency and the needs of the customer. Womack et al readily admit to giving little attention to the special features of Japanese society from which lean production emerged. The advocates of lean construction also notably ignore the extensive literature that addresses the extent to which lean methods are applicable beyond the unique Japanese institutional context (e.g. Kenney and Florida, 1993; Morris and Wilkinson, 1995; Oliver and Wilkinson, 1992). In common with the advocates of re-engineering, they have also systematically ignored the extensive literature that equates lean methods with regressive HRM (e.g. Garrahan and Stewart 1992; Hampson et al, 1994; IPD 1998; Rehder, 1994; Turnbull,
1988). It is almost as if the available research literature is screened in accordance with an ideological filtering system.

**The enterprise culture**

One of the most consistent themes of the imposed research agenda of recent years is the way that it pays homage to the hegemony of ‘customer demand in the market place’. The rhetoric of re-engineering resonates with the broader political agenda that was propagated throughout the 1980s and had become dominant in the English-speaking world by the mid-1990s. Governments in the US and UK saw significant and sustained shifts to the political right. New Zealand and Australia were soon to follow suit. Policy sought to extend the domain of the free market throughout the economy in the cause of competition. Key dimensions included privatisation, deregulation, reduction of trade union power and lower direct taxes. The declared task of the UK government throughout the 1980s was to re-energise Britain by encouraging an ‘enterprise culture’ (Legge, 1995). The prevailing political climate made strategies based on ‘cutting out the fat’ much more socially acceptable than would have been acceptable in previous decades. Economic externalities were of marginal concern. The age of globalisation had begun and the industrial conflicts that had characterised previous decades were seen to be a luxury that the UK could no longer afford. The needs of big business were considered paramount in the belief that the benefits will 'trickle-down' to other levels of society. This belief remains remarkably intact despite the available evidence. Whatever economic benefits were realised by the ‘enterprise culture’, they were not shared equally across society. Inequality returned to Victorian levels with the development of a marginalized ‘underclass’ (Commission on Social Justice, 1993). The increase in UK wage inequality in the 1980s was matched only by
the United States (Machin, 1996). A significant burden of unemployment developed whereby twenty-five percent of men of working age became ‘economically inactive’ (Hirst, 1997). There was also a marked growth in part-time and temporary employment with a widespread reduction of employment protection. Such characteristics are euphemistically known as the ‘flexible economy’.

**Customer responsiveness**

The rhetoric of BPR is undoubtedly a child of its time. It is embedded in the wider cultural, economic and political context from which it emerged. BPR cannot be understood in terms of instrumental rationality. The discourse of re-engineering is inexorably shaped by the ideology of neo-liberalism. The continued hegemonic status of the ‘marketplace’ provides the climate within which private sector management techniques are afforded an iconic status. Of particular note is the way in which the pluralistic management models of the 1970s have been marginalized by the remorseless rhetoric of ‘customer responsiveness’. The task of management was previously seen in terms of satisfying the needs of diverse stakeholders. Such stakeholders invariably included not only customers, but also shareholders, employees, trade unions, suppliers, regulating agencies and public interest groups. All of this has been swept away by the need to be customer focused. The ‘cult of customer’ became dominant in popular management discourse during the 1980s and resonates with the rhetoric of the ‘enterprise culture’ (du Gay and Salaman, 1992). Hence the persuasiveness of the re-engineering mantra that business processes must ‘add value’ for the customer. It is of course no accident that many of the iconic management techniques emerge from the USA, where neo-liberalism is at its most developed (Gray, 1998). Globalisation provides the medium whereby ideologically-
laden management recipes such as BPR are exported internationally. Such ideas fit seamlessly into the dominant management discourse within those countries whose economies are inextricably interconnected with that of the USA. Global neoliberalism and the cult of the customer become inseparable bedfellows. The ultimate argument rests with mystical appeals to the ‘customer’ and the imperatives of the global market. Unfortunately, the grand narrative of globalisation diverts attention from the fact that the vast majority of construction projects are embedded within a local context.

**Adversarial attitudes and the forces of conservatism**

Those who resist the spread of the enterprise culture continue to be cast in the role of ‘wreckers’. Vested interests and the forces of conservatism must be thrown aside in the greater cause of competitiveness. In the manufacturing sector, the shaping discourse equates dissent with ‘militant trade unionism’. In contrast, dissent in the construction sector is invariably equated with ‘adversarial attitudes’. The task of implementing management initiatives such as BPR is invariably linked to the need to alter attitudes through ‘cultural change’. The narrative of the enterprise culture also serves to undermine long established notions of professionalism in favour of the rigours of the marketplace. Professionals traditionally not only have a responsibility to the customer, but also to society at large. Such broader responsibilities have been progressively eroded by the remorseless rhetoric of customer responsiveness. When construction professionals strive to ensure ‘best value’, this translates to best value as measured by the short-term mechanisms of the marketplace. Designing buildings that contribute to the quality of the public space is seen to be wasteful and equated with *prima donna* behaviour. Customer responsiveness does not therefore mean meeting
the needs of building users, it means meeting the needs of those who wish to profit from building users. The point is further illustrated by the way in which developers often see democratically accountable planning officers as barriers to efficiency. Pearson (1999) quotes at length the head of development of Asda (a UK national supermarket) complaining bitterly that planning officers often insist that building facades are individually designed. Such objections are of course soon overcome by the threat to develop elsewhere.

Of further note is the way in which education and training are increasingly linked to ‘effectiveness’ (Construction Industry Board, 1996; OST, 1995) There is no recognition of the role of the professional institutions and universities in protecting educational standards from the short-term demands of the marketplace. Repeated calls to make university education more ‘relevant’ have resulted in the increased dominance of narrow instrumental rationality in both undergraduate and postgraduate courses. Such trends sit ill at ease with the need to provide versatile graduates who are capable of innovative ideas that challenge accepted conformities. But, of course, the last thing that industry leaders would want is a workforce teeming with innovative ideas. This would prevent far too much of a threat to the status quo.

**Alignment of interests**

The current climate for research in the UK has been heavily influenced by the Government White Paper *Realising our Potential* (UK Government, 1993). The paper emphasised the connection between science and wealth creation and led directly to the formation of the Office of Science and Technology (OST) and the subsequent reorganisation of the research councils. The key message of *Realising our
Potential was the need for a better alignment between government, industry and academia. The justification was based on the need for ‘UK plc’ to be more competitive in the global marketplace. The imposed requirement for a better alignment between government, industry and academia was central to the revised research infrastructure. The subtext suggested that academics had previously been wayward and needed to be bought back into line. A climate was created where research had to be relevant to the needs of industry. Research as a generator of knowledge was no longer valued. In accordance with the ideological climate of the time, research was (and remains) subjugated to the narrow cause of efficiency. Hence the attractiveness of BPR. To the construction management research community, the need to focus upon ‘process efficiency to maximise value for the customer’ became unchallengeable common sense. Progressively, the ‘needs of the industry’ became synonymous with the wishes of a select group of large firms. The trend culminated in the Egan Report (DETR, 1998) that imposed the views of a few large clients on the construction industry. An ideological climate had been created whereby the legitimacy of big business to speak on behalf of the construction industry at large was taken entirely for granted. This is despite the fact that Sir John Egan’s BAA (formerly British Airports Authority) operates as a privatised quasi-monopoly that is far removed from the competitive pressures experienced by small construction firms. As always, the rigours of the free market seldom apply to those who prescribe the doctrine of neo-liberalism to others.

The dominant philosophy of industry-university collaboration is well illustrated by a recent review of Government R&D in the UK construction sector:
“The university sector and the construction industry have traditionally been poorly coupled, and there is evidence that the industry at large is still wary of academics. Since the introduction of EPSRC’s Innovative Manufacturing Initiative (IMI) seven years ago the coupling has improved, and the major university construction research departments are now working directly with the most enlightened industry players.”

Fairclough (2002).

The underlying message is clear. Academics are expected to align themselves with industry. The possibility that academics may have good reason for remaining ‘wary’ of industrialists is not considered. The assumption is that academics are out of line. It is further notable that the adjective ‘enlightened’ is applied to industry players rather than university construction research departments. There is seemingly no demand for research that challenges the existing worldview of industry leaders. It is of course much safer to focus research effort onto the task of improving efficiency. The agenda of alignment therefore serves to maintain existing trends.

**Machine metaphors and the construction industry**

The rhetoric of BPR resounds with the simplistic machine metaphors of Taylorism (Conti and Warner, 1994). The overriding assumption is that complex organisations can be subjected to an ‘engineering fix’. The rhetoric of re-engineering has perhaps proved so persuasive amongst construction industry leaders (and researchers) because it resonates with the established favoured discourse (cf. Bresnen and Marshall, 2001). The problems of the construction industry are invariably conceptualised as impediments to machine efficiency. Construction industry leaders readily endorse
improvement recipes that exhort others to be more efficient. The rhetoric of BPR serves to protect their privileged position whilst imposing a management regime of command and control onto others. Classical management theories such as Taylorism (Taylor, 1911) are similarly characterised by the same underlying machine metaphor. Organisations are perceived to be unitary entities with all parts working in harmony towards predetermined objectives. The environment within which organisations operate is further assumed to be static. The primary task of management is to ensure that the machine operates efficiently. Keys (1991) argues that the machine metaphor underlies operational research and the associated field of systems engineering. It is this same machine metaphor that characterises the tradition of project management. Many project managers approach clients with the expectation that the project objectives can be pre-articulated and that they will remain constant over time (Allen, 1984). They see the task of the project manager solely in terms of achieving defined targets. There is a widespread tendency to interweave the machine metaphor with notions of ‘teamwork’ and ‘leadership’. ‘Good team players’ are expected to subjugate their own aspirations to those of the project. Leadership is primarily concerned with motivating team members towards pre-determined objectives. The ultimate test for an effective project team is that it should ‘work like a well-oiled machine’. The underlying model of organisations would have been readily recognised by Taylor (1911). Re-engineering is popular because it reflects and reinforces the way that construction industry leaders already think.

Metaphors such as ‘teamwork’ and ‘customer-responsiveness’ continually reinforce the reality that the majority of employees in the construction industry are required to act as mindless cogwheels in a remorseless machine. There is little pretence that any
efficiency gains will be shared equally amongst the diversity of stakeholders in the construction industry. Targets abound for reducing the cost of construction and enhancing profitability. Re-engineering thereby becomes the latest manifestation of a long established trend. The rhetoric is heavy in the machine metaphor whilst exhorting others to be more efficient. It is taken for granted that people are compliant, predictable and willing to be programmed in accordance with the requirements of a rationally designed system. There is no recognition that the continued imposition of simplistic machine metaphors may contribute to the ‘bad attitudes’ and ‘adversarial culture’ that industry leaders repeatedly decry. In this respect, re-engineering can only reinforce the established ‘command and control’ HRM practices of the construction industry. Research by Druker et al (1996) concludes that the hard model of HRM dominates not only for the construction labour force, but also for professional and managerial staff. On current trends, the last applicant to building and construction courses is due to enter university in 2012 (Fairclough, 2002). The intelligent young people of today seem strangely reluctant to become the mindless automatons of tomorrow.

**Radical re-structuring**

McGeorge and Palmer (1997) suggest “re-engineering has the power to change the very structure and culture of the industry”. Unfortunately, their enthusiasm for ‘new’ improvement recipes blinds them to the extensive structural change that has taken place in the construction industry over the last two to three decades. The changes have affected all parts of the world and are vividly described by the International Labour Office (ILO, 2001). Since the mid-1970s the UK has seen a dramatic reduction in directly employed labour by contractors (and sub-contractors) in favour of
outsourcing. Similar trends are evident across many developed countries to such an extent that employment patterns are increasingly similar to the multi-layered ‘labour-only’ contracting systems long established in developing countries. In 1977 self-employed labour in the UK construction industry comprised under 30 per cent of the total workforce. By 1995 the figure had risen to a high point of over 60 per cent (ILO, 2001). While these figures differ from those published by government departments such as the DETR (1999), there is no denying the dramatic shift towards outsourcing and self-employment¹. A tightening up of the self-employment tax regime in 1997 only partially reversed this trend. Ironically, if outsourcing is taken as a measure of ‘lean-ness’ the construction industry is significantly ahead of the manufacturing sector. The UK construction sector is increasingly characterised by the “hollowed-out” firm that retains only a small core of white-collar staff. Traditional contractors are progressively more removed from the physical work of construction, choosing to concentrate on management and coordination functions (ILO, 2001). Several major contractors of the 1970s have evolved into service companies. Coupled with the declining influence of the public sector, the result of this trend has been a massive casualisation of the construction workforce. Whilst self-employment undoubtedly has a legitimate role in the construction industry, there are significant concerns regarding the way that contractors have avoided their responsibilities through bogus self-employment. Harvey (2001) draws from a range of sources to estimate that 361,000 workers are currently falsely self-employed in the UK construction industry. Harvey’s evidence includes a survey of the scale of self-employment on 10 major construction sites. On average, 85% of the workforce was found to be nominally self-employed.

¹ While ‘outsourcing’ is the more fashionable expression within the broader management discourse, ‘sub-contracting’ remains in common use in the construction industry. It should be noted that subcontracting and self-employment are not necessarily synonymous. Nevertheless, self-employment can be taken as an approximate proxy of labour-only subcontracting (Winch, 1998).
Even more strikingly, the vast majority of these were classified as bogusly self-employed.

The outsourcing of labour through subcontractors is an established trend in most countries (ILO, 2001). However, the deterioration of sub-contracting into bogus self-employment is by no means inevitable. Within countries such as France and Germany self-employment is illegal, other than on a small business basis (Winch, 1998). Subcontracting carries obvious advantages in terms of flexibility when faced with an unpredictable workload due to the vagaries of tendering. However, if this were the only reason for sub-contracting the current trend towards partnering and framework agreements would be accompanied by a return to directly employed labour. Unfortunately, there is no evidence to support such a connection. A more compelling explanation is the desire to avoid the responsibilities of supervision and the associated costs of employment legislation and welfare provision. Small and transient labour-only subcontractors are much more able (and willing) to evade such costs. Main contractors further benefit through price certainty and improved productivity by pushing downwards the risks of poor organisation and inclement weather (Winch, 1998). Such risks are borne by a casualised workforce that lacks representation in the workplace. The growth of labour-only sub-contracting serves to undermine the role of trade unions and the machinery of collective bargaining. The de-regularisation of labour markets was of course a central tenet of the ‘enterprise culture’. Whilst developed countries adopted these policies through choice, they were often imposed on developing countries as a condition of loans provided by the World Bank and the IMF (Chossudovsky, 1998). The casualisation of the construction workforce has significant implications for job security, training and health and safety. The basic
level of labour rights in the UK construction industry equates to that in developing countries. The apprentice system lies in tatters and craft skills are in serious decline. Trends towards pre-fabrication are further deskilling local communities whilst the costs of transportation are subsidised by the taxpayer. Social disintegration and escalating crime levels are further notable externalities that are ignored by neo-liberal economics and the associated managerialist propaganda of re-engineering. Within the UK context, the following quote is especially telling:

“In many countries private clients are organised into groups and have used their enhanced power in recent years to force contractors to lower their costs and improve their delivery. Unfortunately, as we have seen, this has too often been at the expense of the workforce and of the investment in human capital required to ensure the long-term capacity to deliver high-quality construction.” (ILO, 2001)

In this respect, the construct of ‘re-engineering’ is a fundamental part of the problem. The discourse of re-engineering is only accepted as common sense because it reflects the dominant ideology of neo-liberalism. Fairclough (1989) argues that when ideology becomes common sense, it apparently ceases to be ideology. He further argues that this in itself is an ideological effect. As a result, anybody who talks ‘common sense’ to the construction industry exacerbates the worrying trends of the last 30 years. Unfortunately Rethinking Construction (DETR, 1998) fails to live up to its title. A more accurate label might have been More of the Same Old Rhetoric.
Private Finance Initiative

Many of the above trends are equally apparent within the various ‘improvement’ initiatives that have been imposed on the public sector in the name of enhancing efficiency and value for the money. The Private Finance Initiative (PFI), currently the UK Government’s preferred method of capital investment, is in many respects the epitome of re-engineering. It was originally introduced in the UK by the Conservative government of 1992 and is undoubtedly a direct product of the ‘enterprise culture’.

PFI provides the means by which private companies design, build, finance and operate facilities in return for a fee for the provision of services. Contract durations typically vary from 25 to 35 years. It is contended that PFI allows for more investment in public services than would otherwise take place. In essence, the implementation of PFI equates to the privatisation of public services in the ideological belief that the private sector is more efficient. Such faith in the iconic status of private sector management techniques remains remarkably intact despite recent high-profile failures such as Railtrack and Enron. Beyond the feeding frenzy of the private sector, PFI schemes are attracting extensive public criticism (Public Services Privatisation Research Unit 1997, Gaffrey et al. 1999, Monbiot 2000, Pollock et al. 2001). The main points of concern relate to: (i) off-balance sheet financing, (ii) poor value for money, (iii) the mortgaging of public assets, and (iv) the creation of a two-tier workforce. There are also many reservations about the architectural quality of PFI schemes. The UK Treasury is apparently ‘sitting on’ a recent report by the Commission on Architecture and the Built Environment (CABE) that criticises PFI policy (Dorrell, 2002). John Cole, head architect at Northern Ireland’s Department of Health is quoted as follows:
“[the CABE report] is far from complimentary about the PFI projects it assessed....It is more critical than the government was prepared to accept. It suggests there are several high-profile schemes that have failed to live up to the standards of its Better Public Buildings initiative.” (Dorrell, 2002).

Unfortunately, few of the above concerns fall within the remit of the construction management research community. The literature on PFI overwhelmingly conforms to the dominant ideological construct by ignoring the externalities that lie beyond the narrow domain of instrumental rationality. The dominant underlying assumption is that PFI is a ‘good thing’ (cf. Ezulike et al 1997; Grimsey and Graham, 1997; Owen and Merna, 1997; Hickman, 2000). Akintoye et al (1998) consider the risks associated with PFI from the perspective of clients, contractors and financial institutions. Needless to say, the risks borne by an increasingly vulnerable workforce are not considered relevant. In this respect, PFI has much in common with other re-engineering initiatives and forms part of a longstanding trend in the provision of public services. The essential characteristics are shared with Compulsory Competitive Tendering (CCT), ‘Best Value’ and Public Private Partnerships (PPP). The common themes are privatisation, outsourcing and the introduction of market mechanisms. While the rhetoric of efficiency and flexibility reigns supreme, the reality for the workforce has been the progressive erosion of working conditions. The end result is an increasingly casualised workforce characterised by low pay, insecurity and poor working conditions. It can be argued that any apparent marginal efficiency gains of PFI have been at the expense of staff pay and conditions, rather than genuine.
productivity gains (Sachdev, 2001). Despite limited attempts to protect the terms and conditions of staff transferring to the private sector, no such protection is offered to new staff subsequently engaged. Hence concerns regarding the creation of a two-tier workforce. The privatisation of public services has a further impact in fragmenting the workforce and downgrading the bargaining power of trade unions. Consequently private sector companies are able to secure competitive advantage by progressively trading-down employment conditions. Perhaps the biggest casualty of the privatisation of public services is the ethos of public service. Longstanding notions of serving the community are swept aside by the remorseless rhetoric of customer responsiveness. Every relationship is reduced to a simplistic economic transaction between ‘suppliers and customers in the marketplace’. Further examples of collateral damage include equal opportunities and family friendly employment practices (Sachdev, 2001). Such concerns are a legitimate part of the debate about PFI. Unfortunately, as externalities beyond the narrow domain of instrumental rationality they tend to be omitted from the construction management research agenda. The downgrading of employment conditions is strangely absent when the ‘major issues’ of PFI are discussed (e.g. Grimsey and Graham, 1997; Owen and Merna, 1997). The widespread erosion of employment conditions is predominantly ignored because it is not relevant to the ‘needs of industry’. The only issues to be taken into account are those that pass through the imposed ideological filtering system.

Engaging with reality

It is recognised that many will feel uncomfortable with the arguments presented in this paper. A common counter-criticism directed at critical work relates to an alleged lack of supporting empirical evidence. Strangely, the fact that there is no convincing
empirical evidence in support of many of the grandiose claims made by the advocates of re-engineering, lean construction and PFI is not considered problematic. There is a further tendency to reject critical work on the basis that it is one-sided. In contrast, the grossly one-sided nature of the mainstream literature on re-engineering is deemed acceptable. Notwithstanding these implied double standards, there are significant methodological issues relating to critical research. It must be conceded that empirical data is inevitably shaped and filtered by the guiding theoretical framework (Alvesson and Deetz, 2000). However, once again this applies equally to mainstream research. The selectivity of the advocates of re-engineering is all too obvious on the basis of the externalities that are so consistently ignored. Researchers inevitably focus upon the empirical facts that are ‘relevant’ to the selected domain of enquiry. Positivist and interpretive research are both characterised by systematic distortion through unconscious selectivity. What researchers focus on is governed by the ‘common sense’ of the dominant ideological construct. Critical researchers are of course equally prone to selectivity, but at least they are self-consciously selective. This is more than can be said for the prevailing discourse on re-engineering construction.

Those who require ‘examples’ that illustrate the arguments presented in this paper need look no further than recent copies of Construction News. Crates (2002) describes vividly the black economy that exists around London’s construction sites. Migrant labour is estimated to account for 10% of workforce on some sites. A manager on a major London site is quoted as follows:
“It’s always a concern when you do a safety induction that foreign workers will just nod their heads. They’re too scared to say they don’t understand in case they lose their job”.

The facts of the construction industry’s horrendous safety record are no secret. In the year 2001/2002 there were 79 fatalities in the UK construction industry, down from 105 for the previous year (HSE, 2002). Statistics on non-fatal injuries are rendered almost meaningless by massive under-reporting amongst the self-employed. The construction trade unions have been the most consistent champions of health and safety. In this respect, casualisation and declining trade union membership are a cause for significant concern. Worries about bogus self-employment by no means limited to London. For example, following ‘intensive union lobbying’ the Scottish Enterprise Minister Iain Gray announces:

“I am very concerned about the practice of what is known as ‘false self-employed’ – especially in the construction industry. I would remind all suppliers to the Scottish Executive that I expect them to comply fully with the law on tax, social security and all other UK and European legislation” (Construction News, 2002)

The extent to which the Scottish Executive is prepared to match these words with action remains to be seen. Given the complicity of government agencies in the massive casualisation of the construction workforce over a 25-year period, it may be that more is required than mere ‘reminders’. Needless to say, the link between
casualisation and the rhetoric of *Rethinking Construction* (DETR, 1998) passes without comment.

Despite the prevailing omnipotence of Key Performance Indicators (KPIs), there seems little chance of any KPIs being introduced to monitor the extent of bogus self-employment. Indeed, the Confederation of Construction Clients (CCC) is apparently actively resisting the introduction of a KPI relating to payment. Lynch (2002) quotes CCC Chief Executive Zara Lamont (previously the ‘high priestess’ of KPIs at the Construction Best Practice Programme):

“If the industry bands together to get payment KPIs, then there is little that clients can do about it. But we have KPIs coming out of our ears and one more won’t solve the industry’s problems.”

There therefore seems little chance that the industry’s major clients will commit themselves to combating late payment. Such practices remain endemic in the construction industry and contribute directly to its continued fragmentation and casualisation. Unfortunately, any initiative to combat bogus self-employment and late payment practices inevitably comes up against commercial vested interests. Given the government’s close relationship with big business, there is little likelihood of legislation that erodes the sanctity of ‘flexibility in the market place’. These are the issues that characterise the UK construction industry at ground level. The evidence of 25 years of re-engineering is there for all to see. Unfortunately, the majority of construction management researchers fail to engage with this reality. The evasive propaganda of customer responsiveness has rendered them blind.
Conclusion

Re-engineering construction is impossible to define in terms of its substantive content. It is best understood as a rhetorical label. Despite this lack of definition, in recent years the language of re-engineering has heavily shaped the construction research agenda. The dominant theme is the quest for optimisation with associated assumptions of scientism and the treatment of people as passive objects. The current research agenda notably ignores the meaning and experience of re-engineering for the industry’s workforce. The possibility of employee intransigence born from the failure of previous top-down Taylorist management initiatives is not recognised. The rhetoric of improving efficiency through ‘re-engineering construction’ is undeniably attractive in the short-term. However, the discourse of re-engineering only seems like common sense because it is rooted in the neo-liberal ideology of the enterprise culture. The underpinning doctrine reflects the hegemonic status of the ‘customer in the marketplace’. It has further been suggested that the UK construction management research agenda subjugates knowledge to ideology. The language of re-engineering both reflects and reinforces the construction industry’s propensity for machine metaphors. Unfortunately, the relentless focus on technical efficiency blinds industry leaders and researchers to the damaging side effects. The casualisation of the construction workforce raises real questions about the industry’s long-term capacity to deliver high-quality construction. Similar concerns are raised by the various improvement initiatives imposed upon the public sector. Examples include CCT, ‘Best Value’, PFI and PPP. The rhetoric of efficiency and value for money disguises the fact that private sector firms increasingly secure competitive advantage at the expense of employment conditions. The underlying ideological construct of PFI is the same as that which lies behind a range of re-engineering initiatives in the private
sector. Lean construction, pre-assembly, standardisation, supply chain management and PFI are all subtle variations on the same monotonous theme.

The declared aim of this paper was to develop a critical perspective on re-engineering construction. Following Alvesson and Deetz (2000), to highlight the precarious and debatable nature of knowledge is seen to be a worthwhile contribution in itself. There are clearly victims of re-engineering as well as beneficiaries. The concerns of the former are no less deserving of intellectualisation than are those of the latter. However, the argument has been developed that even the short-term beneficiaries of re-engineering will ultimately fall victim to their own internalised ideology. Given that critiques of this nature are unlikely to emerge from industry, the responsibility of challenging taken-for-granted assumptions must rest with academics. At present, too many construction management academics are neglecting this responsibility. Whilst it is frequently argued that universities should get closer to industry, there is a convincing argument that they are already too close. Diversity in thought is an essential requirement for innovation. Unfortunately, the construction management research community is currently characterised by a cloying conformity. The long-term future of the construction industry demands radical thought. As a final comment, it must be recognised that the ideology of neo-liberalism will not prevail forever. The cracks are already there to be observed in the current US accountancy scandals and nervous stock markets. Re-engineering is the language of yesterday. What the construction industry requires is the language of tomorrow. Whilst reliable crystal balls remain few and far between, one thing is certain. More of the same is not an option.
References


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