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DESIGNING VIRTUAL ORGANIZATIONS? : THEMES AND TRENDS IN POLITICAL AND ORGANIZATIONAL DISCOURSES

This paper explores the contemporary fascination with seemingly new, benign and transcendent virtual organizations. The paper extends Gerlach and Hamilton’s (2000) investigations into virtuality within the genres of business restructuring and science fiction. The paper unravels a purposeful, enveloping consciousness that masks both neo-liberal fictions and post-modern fantasies dominating the virtual organization discourse.

This paper proposes that practical examples of de-physicalized, technologically-transcendent virtual organizations crucial to this virtual consciousness do not exist or are fundamentally different from expectations. The paper proposes that the presumed new epoch of global capitalism based on the productivity unleashed by virtual organizations is illusory.

The paper concludes that once virtual consciousness is penetrated not only is the material and ideological aspects of virtual organizations unmasked but it is possible to locate a pragmatic, conjoint, physicalized type of “virtualised” organization that is not new, benign or transcendent. This type of co-destiny virtual organization (such as terrorist organizations and organised crime) is more reflective of enduring concerns and contemporary purposes fundamental to what organizations make visible or render invisible.

Keywords: consciousness; neo-liberal; post-modern; virtuality; virtual organizations; terrorist organizations; organized crime; visible and invisible organizations.

INTRODUCTION

The forms of consciousness that relate to contemporary manifestations of capitalism have taken on a triumphal, insistent air. These forms of consciousness promise that heaven on earth is within our grasp; history has ended, what happened in the past no longer matters; democratic, corporate capitalism has resolved earthly concerns; technology allows the shedding of the limitations of physical existence and one is in the age of the last man in whom one could merge biology and machines into futuristic life forms. Utopian notions of individual and societal perfectibility abound, everything, even DNA, could be reified and turned via the marketplace into things that one could manipulate to enrich existence.

One is struck by how widespread is this acceptance of such a consciousness. How disparate is this consciousness from the worldwide political economy. How does this consciousness mis-represent enduring realities of everyday existence and how does its shimmering, de-physicalized, global capitalist/technological future mis-direct one away from embracing the enduring, physical qualities and social compacts essential to maximizing any globalized, new-world order or a virtualized, brave new world?

In recent years, business practice, management, organization studies and other sociological and business-related discourses have exhibited a fascination with virtuality in the guise of the virtual organization as the only response to the emergence of chaotic global competition. This consciousness of virtuality exhibits a common narrative. According to this narrative, as the second Millennium approached, a theoretical and practical vacuum developed that could not be filled by prevailing definitions, concepts and examples commonly associated with critical political economy. Given the presumed death of Marxism and Socialism, political economy no longer seemed capable of establishing a plausible response to global capitalism. Nor did it seem capable of grasping the emerging possibilities for human transcendence. Instead, this vacuum has been taken over by neo-liberalism - with its fiction of the triumph of flexible, global capitalism that has sloughed off all earthly, physical constraints and post modernism - with its fantasy that global, technological capitalism is about fragmentation, multiple identities, images and surfaces. The iron cage of the rational, hierarchical, authoritarian organization, representative of the previous physicalized era of industrial capitalism, is replaced by the new, benign, boundary-less, flexible, networked, information and communication technology-driven, empowering, virtual organization.

This virtual consciousness involves an on-going fear of physical relationships and an exaltation of technology as a replacement for human involvement in the world. This virtual consciousness attempts to remove the human uncertainties in social interaction and to mask what actually transpires (in terms of why people actually work and how people actually live) within virtual organizations. It directs one towards accepting and critiquing an in-substantial, elusive organizational form in terms that are themselves equally elusive and impractical. Most of all, this virtual consciousness keeps one from questioning who benefits from virtual organizations and from testing what are the enduring attractions of being without specific physical presence. This paper seeks a non-epochal, anti-utopian and demystified view of virtual organizations.

As proposed by Jameson (2002), this paper questions the strength of a theoretical framework based on the notion of the historical inevitability of moving from a physical existence to a non-physical existence. This paper proposes that not only is the neo-liberal, grand historical narrative compromised by its reliance on the enveloping context of historical inevitability but also the multi-narratives of postmodernity have similar flaws. It also indicates that the theoretical support for this virtual consciousness relies on utopian fashions with technological-based human perfectibility, libertarian notions of human and social emancipation and anarchistic notions of flexibility and constant change which not only ignore, but negate, the extensive literature on technological, libertarian and anarchistic dystopias.

This paper considers that practical examples of the envisioned virtual organization are difficult to find and any existing guidelines are almost impossible to put into practical effect. As Sennett (1998), Balfour and Grubbs (2000) and Bunzel (2001) indicate, flexible, technology-driven, virtualizing work arrangements have adverse impacts on social interaction and personal identity and extend and sustain existing and new disciplinary arrangements. Additionally, following O’Hara (2001), the systemic productivity increase that is supposed to accompany the adoption of information and computer technology and virtualizing, flexible work arrangements has not eventuated. Instead, this virtual consciousness, particularly in association with globalization consciousness, acts to divert attention
away from the realities of work and everyday life which for most of the world are not suffused with the glittering jewels and technological toys of the new virtual, global order.

Given these problems, a more useful approach is not to rely on narratives of subservience, via physicality, or transcendence, via virtuality, but to accept that whatever the historical consciousness, physical and virtual organizations may incorporate either or both possibilities. The removal of this mask may allow one to see the commonality between virtual and other organizations; to perceive that the characteristics associated with virtual organizations are exhibited by other organizations which are neither new or benign or technologically transcendent (Gunaratna, 2002) and to recover - by looking again into seminal texts such as Davidow and Malone (1992), with its obscured notion of co-destiny - a simpler, more operationally-feasible and a more human-scale version of virtual organizations which no longer needs to be masked by virtual consciousness and encompasses a range of possible futures and human actions.

**NEO-LIBERAL FICTIONS**

Gerlach and Hamilton (2000) propose that the genre of business management writing, especially business-restructuring literature and the science-fiction genre, converge to the point that they are "linked discourses, sharing a commitment to science and technology" (Gerlach and Hamilton, 2000: 461). They consider that science fiction provides "...a more socially critical discourse [which] can offer analytical tools to unpack the power/knowledge formations at work in current business writing" (Gerlach and Hamilton, 2000: 461). This occurs because science fiction writing, as Landon (1997) found, has mutated into a number of expected and unexpected directions. Business-restructuring writing also has an inherent emphasis on the relationship between the present and an immanent future which is susceptible to both the theory and rhetoric of what Csicsery-Ronay (1991), cited in Gerlach and Hamilton (2000: 461), terms the "central concepts from the thesaurus of science-fiction imagery". According to Gerlach and Hamilton (2000), business-restructuring writing exhibits science fiction’s "faith in technology and its desire to rewrite the future" (Gerlach and Hamilton, 2000: 464). Gerlach and Hamilton support Landon's (1997) view that science fiction is capable of shaping cultural assumptions about science, technology and the future. Most significantly, they share Csicsery-Ronay's (1991) notion that science fiction is now a "mode of awareness" or consciousness which shapes intellectual discourse - even post-modern, social theory of Baudrillard (1983) and Haraway (1985).

Adapting Csicsery-Ronay (1991), Gerlach and Hamilton (2000) indicate that science fiction is part of two power/knowledge processes - artificial immatence and science fiction consciousness. Artificial immatence puts everything sacred or transcendental within the ambit of the technologically manageable. This continues the modernist project of "re-defining society, nature, and the self as infinitely contingent and manipulable" (Gerlach and Hamilton, 2000: 465). Science fiction consciousness denotes how science fiction influences conceptions of what is imaginable or plausible. This assists one to experience, in daily life, uncertainty about the relevance of the past and certainty that one is living in an era where technology may resolve any problem. This suggests a discourse in which everything was future orientated and dependent upon technological determinism.


Gerlach and Hamilton (2000) consider this genre as largely prescriptive, providing instrumental solutions regarding business efficiency and effectiveness. Gerlach and Hamilton (2000) also notice that these prescriptions are suggested as being suitable for other non-business organizations and social institutions. This confirms the fundamental, large-scale, social engineering inherent in these proposals. This means that the business- restructuring literature is not simply about increasing profitability but about "imagining a different kind of society…structured along a flexible market model" (Gerlach and Hamilton, 2000: 462). Gerlach and Hamilton (2000) posit the origin of this genre within the early 1990s. They consider that it both reflects and reproduces a neo-liberal political agenda.

This neo-liberal, political agenda is a response to the globalization of markets, the development of digital and other networkable technologies, cross-border flows of labour and the failure of challenges to American, economic hegemony. In organizational terms, this means existing bureaucratic organizations are outmoded. Information and communication technology now automates the processes of command and coordination. The past is ruptured from a present, colliding with an immanent future. Traditional, bureaucratic, hierarchical organizations, with their human chain of command, are no longer needed in the new global economy. A new global economy exists, one which rewards flexibility in confronting technological and economic change and the ability to rapidly change the organization, especially workers taking advantage of entrepreneurial opportunities.

Gerlach and Hamilton's (2000) approach concentrates on how three, central science- fiction concerns - the virtual organization, the cyborg employee and the cybernetic culture - are treated in the business literature. All three concerns are essential, inter-related parts of the emerging virtual consciousness.

**The Virtual Organization**

In the business-restructuring literature, virtual organizations are framed as being revolutionary - unencumbered by the material constraints of other organizations. Gerlach and Hamilton (2000) consider that Barnatt (1995) holds that virtual organizations are characterized by “cyber-technology-enabled working practices” - telecommuting, shared desks, Groupware and empowered virtual teams. Some virtual organizations exist solely within cyberspace, yet are able to interact with both physical and virtual marketplaces. This approach exalts the person or the transient team with an idea which enabled goods or services to be developed, marketed and distributed in cyberspace. Gerlach and Hamilton (2000) propose that Davidow and Malone (1992) believe that virtual organizations are based on using computer and information technology to link corporate processes and organize their responses to any internal or external stimuli in real-time.

Such virtual organizations are characterized by a flow of information, permeable internal and external boundaries, shifting work responsibilities, shifting line of authority, the blurring of distinctions between the organization and its customers and suppliers and
work practices which are more about communication and information than any material structure. According to Gerlach and Hamilton (2000), Zuboff (1998) conveys how information systems become the text by which one views the processes of an organization. In virtual organizations, workers become part of this information system. Virtual workers are “informed,” suggesting they should be managed in the same manner as databanks, profit margins and inventories.

Virtual organizations appear to be about reproduction not production. The fundamental problem of business organizations is reframed from survival and profitability to “constantly reproducing the organization by systematically re-defining and re-imagining the very nature of organization as an informational process” (Gerlach and Hamilton, 2000: 468). Once virtual organizations re-define organizations as technological systems, or merely information flows in cyberspace, it becomes much easier to achieve constant reproduction and change for “human relations, bureaucratic rules, company traditions, office filing cabinets and other materially-grounded traces of organization cease to be direct objects of management” (Gerlach and Hamilton, 2000: 468). The focus of management is no longer the human element but the manipulation of organizational virtual texts or information flows which have no precise physical location.

Despite the increasingly-diverse discourse emerging in relation to virtual organizations noted by Schultze and Orlikowski (2001), Gerlach and Hamilton's (2000) approach to distinguishing the characteristics of a virtual organization is highly representative of practitioner and academic writing on the nature of virtual organizations. This is mainly due to their sources, especially Davidow and Malone’s (1992) work on virtual organizations being widely influential on, or representative of, the wider virtual organizations discourse. Voss (1996), Anderson (2001), Soytso (1997) and others, evidenced by postings to Virtual-organization.net (VoNET, 2003), directly or indirectly acknowledge what they consider are Davidow and Malone’s (1992) depiction of the essential characteristics of virtual organizations. These characteristics are taken to revolve around the causal interconnection between globalization and virtuality.

These characteristics include an emphasis on non-physical assets; being flexible and highly adaptable with the extensive use of teams; using internal and external networks without any organizational boundaries; relying on computer and communications technology; and creating an empowered workplace with a distinctive reliance on free floating, cyber trust where everyone is involved in decision making and in keeping ahead of constant change. Many of these presumed characteristics have been the focus of extensive practitioner and academic interest. For example, there has been much interest in virtual teams, including the work by Lipnack and Stemp (2000) and by Meyerson, Weick and Kramer (1996) on virtual, project teams. There has also been much interest in trust in virtual organizations, including the work by Jarvenpaa and Ives (1994) on the fundamental importance of trust in managing a transnational organization (Handy, 1995), on the association of hi-technology and hi-touch (Jarvendapaa and Leidner, 1996) on trust in global virtual teams, Meyerson et al (1996) on the notion of swift trust and Tomkins (2001) on the balance between personal trust and information in networks.

Just as noticeable within the wider, virtual organizational literature is the view that virtual organizations could exist entirely, or almost entirely, in cyberspace or the virtual domain. Gazendam (2000) portrays virtual organizations as a series of digital bites and bytes. Schultze and Orlikowski (2001) and Palmer and Speier (1997) advance the notion of web or digital virtuality, where transactions are partly or completely made in the cyber domain and workplaces also partly or completely exist in the cyber domain. In some cases, virtual organizations are depicted as not requiring any actual ownership of physical or human assets and, maybe, not even any actual physical presence. Friedman (1999) describes a Hong Kong-“based” entrepreneur who outsources just about everything and uses the internet to manage relationships within a network. This further echoes Barnatt’s (1995) notion that all one needs to operate in this virtual environment is a viable idea and the virtual organization - the “infomachine” will be able to take care of all the logistical and other requirements to make the product/service a global success in a manner that so captivates, and yet troubles, Gerlach and Hamilton’s (2000) imagination.

Cyborg Employees

Gerlach and Hamilton (2000) argue that the business-restructuring literature celebrates the science-fiction concept of the cyborg worker. Senge (1994) and other writers extol the possibilities of a merger of electronics and humanity and the merger of biology and information technology. Senge’s (1994) systems-theory, cybernetics approach uses biological/engineering concepts of feedback to manage workers interactions by regulating or appropriating their mental modes. According to Gerlach and Hamilton (2000), Barnatt (1995) posits the imminent arrival of the “metaman,” an extensive, living organism where people, organizations and global information structures are fused in “a single, hive-mind entity……made possible by micro chip implants” (Gerlach and Hamilton, 2000: 469).

The intention is to create flexible workers capable of using information technology to constantly adapt to the changing environment - to create workers who could grasp ideas and convert them almost without effort into entrepreneurial opportunities brought to fruition by virtual organizations. This adaptability is presented by Davidow and Malone (1992) as the essential requirement for individuals and virtual organizations to survive the Twentieth-First Century technological and economic environment. This adaptability thrives because there is no institutional or cultural memory - no institutional or cultural history or tradition. The ideal is the American rather than the European organization, the American rather than the European worker, as Americans are open to technological change and exhibit an appropriate science-fiction consciousness.

This European/American opposition reinforces the required rupture in consciousness between a backward looking, old world and a forward-looking, new world. As Gerlach and Hamilton note (2000: 470), “[n]o transcendent values tie American workers to static ideals derived from past experience, from history.” This is emblematic of how science fiction consciousness, virtual or otherwise, operates to separate the past from the present, making it much more difficult to unmask the purposeful fallacies of consciousness itself. It would seem that virtual consciousness would be much more effective in a society where organizations are certain that organizational memory and the tacit skills of employees are a drag on present and future competitiveness.

Gerlach and Hamilton (2000) consider that the future vision of the cyborg worker in the business-restructuring literature represents a radical anti-humanism, a form of artificial immanence where future virtual organizations operate without humans or with augmented machine-like cyborgs. The human body is not inviolable but is subject to, and integrates, with technology in the most intimate terms. The radicalism of this approach must not be under-estimated. The cyber worker fiction indicates that the ambition of business writers is “…to leave behind the humanity that had plagued capitalism from its inception” (Gerlach and Hamilton, 2000: 470). This goes far beyond the usual science fiction concept of the cyborg. As Csicsery-Ronyai (1991) formulates, the historical function of the cyborg is to
explore a radical anxiety about human consciousness just when it appears it is not uncertain or contingent. The business-restructuring literature replaces this uncertainty with the radical anticipation of a post-human future.

**Cyborg Culture**

Gerlach and Hamilton (2000) propose that science fiction is open-ended and includes a number of possible cultures and futures. By contrast, the business-restructuring literature advocates a global capitalism with a distinctive cybernetic corporate culture which focuses on information and communication systems embracing the non-material. In effect, transcendental human qualities (emotion, identity and imagination), traditionally beyond rational management, collapse into the ambit of technological management and are left open to simulation and replication. History, especially cultural history - outside of science and technology - is no longer relevant. Mythology - emblematic of cultural concerns - outside of the mythology of science and technology is also no longer relevant. This elevated mythology of science and technology becomes a “replicable factor of cultural production...used by management of a cybernetic system as feed back and reinforcement to program corporate values into workers” (Gerlach and Hamilton, 2000: 470).

Everything is grist to the virtual mill of virtual organizations. Even sacred, transcendental beliefs, rituals and symbols [such as when Senge (1994) sought to use Gnosticism, Sufism and other systems of spirituality and philosophy to train workers] are rendered as instrumental techniques to increase productivity.

Virtual consciousness depends on business domesticating culture. This is to prevent culture functioning as a site of key resistance to technological determinism. Cultural determinism is not to become a basis for different visions of the future. Culture must not be allowed to continue as a site for values and myths drawn from the past which could deflect attention away from the immanent technological future. Culture as the repository of the non-rational must not be allowed to counter the rationalization processes of artificial immanence. As Haraway (1985) recognizes, the idea is to translate the known and the unknown world into the common language of technology where there is no resistance to instrumental control and everything is subject to dis-assembly, investment and exchange. The business-restructuring literature stresses encouraging workers to expose their deeply-held assumptions or mental modes which shape world-views in order to re-program them into the consciously-constructed, technologically-orientated values and myths of corporate culture which reinforce science-fiction and virtual consciousness.

**The Future in the Present**

Both science-fiction and the business-restructuring literatures reduce technological determinism to the impact of communication and information technology. Fortunately, as Csicsery-Ronay (1991) emphasizes, science-fiction writers are also notable for their serious, passionate concern about their social responsibility to imagine better futures. Science fiction exhibits two hesitations - historical/logical and ethical - which effectively “embed scientific concepts in the sphere of human interests and actions, explaining them and explicitly attributing social value to them” (Gerlach and Hamilton, 2000: 387). Gerlach and Hamilton (2000) locate many examples of revolutionary or history-transforming, artificial immanence and science-fiction consciousness in the business-restructuring literature. In this literature, artificial immanence and science-fiction consciousness also work to legitimate a future-orientated, technological determinism. However, this literature exhibits little or no hesitations about possible futures. Technological immanence reproduces, via virtual organizations, cyborg workers and a cyborg culture is used to gain assent to a limited future. In this discourse, a limitless technological civilization is reduced to one, already written, future. This is a specific, future-orientated, techno-scientific project and there is no consciousness of any other alternative that could fill this vacuum.

The business-restructuring literature closes the plausibility and ethical gaps between the possibility and desirability of technology-driven, social transformation evident in the science-fiction literature. The future collapses into the knowable, predictable and controllable. Gerlach and Hamilton (2000) acknowledge that the exploration of communication and information technology within science-fiction writing has drawn from traditional sources of power in an ever-tightening web of instrumental rationalization. But this has gone much further within the business-restructuring literature. In this literature, technology is reified - shaping the direction and pace of change and further reinforcing an administrative instrumentality founded on systems thinking and market principles. Artificial immanence is now about the technicalities of information systems and all possible consciousness, even transcendental consciousness, is based on market values. The business-restructuring literature processes a technological immanence where a future, with its specific set of social changes, is already upon us and cannot be stopped.

The business-restructuring literature denies the possibility of dissent. History-based, negative analysis of technology is ignored and technological and market change is rendered normal and rational. The future is upon us and one has to be ready to play one’s part or be swept aside. Organizational restructuring has to anticipate the quickening pace of technology-led environmental change. Gerlach and Hamilton (2000) support Kellner’s (1995) observation that this pre-emptive reductionism makes it very difficult to maintain a social theory or consciousness that illuminates the present by providing critical visions from the past.

Gerlach and Hamilton (2000) indicate that the business-restructuring genre represents the colonization of the social with economic values. Both science-fiction and the business-restructuring literature present a teleology of technology, progress and an utopian future. Both exist in a place between the present and a future based on technology. But science fiction wants to explore this imaginary space and to maintain it as a critical space. By contrast, the business-restructuring literature demonstrates the power that may be achieved by a shared consciousness shaping the present by presenting a particular future. Gerlach and Hamilton (2000) suggests that what is required within the business-restructuring literature is an instilling of an exploration of many plausible and technological futures within an open, rather than a closed, cybernetic system which leaves room for an ethical, social critique that imaginatively and practically links the past(s), present(s) and future(s), effectively maintaining the tension between future vision and present reality integral to the science-fiction literature functioning as a mode of critical thought.

**POST-MODERN FANTASIES**

The post-modern underpinnings of Gerlach and Hamilton’s (2000) approach to social-science fictions do not allow them to examine, relentlessly, the impact of these fantasies on the physical and materialist nature of virtual organizations. Gerlach and Hamilton’s (2000) post-modern predilection leaves them dazzled by the characteristics and possibilities of virtual organizations, especially the
The difficulty, if not the absurdity, of this post-modern involvement in virtual consciousness becomes even more evident after confusion over the origin, context and nature of globalization. The world is not unified or even uniformly inter-related. Globalization is modern preoccupation with globalization transforming capitalism, by collapsing time and space, is part of a more extensive theoretical Rosenberg’s (2000) expose of the shallowness and contradictions of so much contemporary theorizing about globalization. Post-modern exhibits a fundamental attraction to the capitalist marketplace, identifying with its logic of “pleasure and constraints by computer and other technology and of being encompassed by the clouds of virtual consciousness, obscuring or mis-directing, one from focusing on what is happening in relation to such matters as inequalities of wealth and power while tantalising us with the possibility of being released from our physical lives” (Eagleton, 1996: 132).

Monolithic, nation-state-based markets are outmoded. State-based regulation of universal markets is no longer possible or desirable. The monopolies and oligopolies that strangle so many local industries can be replaced by global, free and perfect markets based on technological networks which remove barriers to entry and encourage innovation and flexibility that favour small, over large, competitors in a constant combat which could remove the possibility of entrenching any systemic exploitation. Virtual-market places could allow economic and social exchanges without discriminating against difference, identity and other post-modern concerns and without revealing time or spatial location. The vast bureaucratic, hierarchical organizations redolent of the worst physical impacts of state-based industrial capitalism could be replaced with virtual, technologically-enabled, fast organizations which focus on the exploitation of knowledgeable, not physical, effort and promise a universally, level-playing field with an emancipated, exciting workplace which rewards creativity and innovation without needlessly exploiting human or other resources.

It must be acknowledged that Gerlach and Hamilton (2000), via their reliance on Bogard’s (1996) Social-Science Fiction, do demonstrate that the post-modern does help us understand the dangers of these de-physicalized, virtual organizations. The post-modern allows one to understand the extension of surveillance into the image and electronic simulation of surveillance (Foucault, 1979) into virtual organizations and allows one to understand how one’s consciousness may be distracted if not submerged by surface, image and desire (Baudrillard, 1983). However, as Alvesson and Skoldberg (2000) propose, the post-modern, despite its insights into the dark side of virtual organizations and global capitalism, is constrained, if not captured, by its insistence that what is needed now in relation to capitalism is to stretch market boundaries without changing anything essential.

The difficulty, if not the absurdity, of this post-modern involvement in virtual consciousness becomes even more evident after Rosenberg’s (2000) expose of the shallowness and contradictions of so much contemporary theorizing about globalization. Post-modern preoccupation with globalization transforming capitalism, by collapsing time and space, is part of a more extensive theoretical confusion over the origin, context and nature of globalization. The world is not unified or even uniformly inter-related. Globalization is theorized as both its own cause and effect and Rosenberg (2000) comes to one single, simple conclusion. Globalization “…unavoidably pushes the categories of space and time into a role which they cannot be imagined to fulfil” (Rosenberg, 2000: 165).

Rosenberg (2000) articulates the essential problem for neo-liberal and post-modern advocates of globalization and the virtual organization as the only way forward into a Twentieth-First Century, where society and markets are supposedly transformed by technologically-induced revolutions in space and time. According to Rosenberg (2000), it is possible that some sort of spatial-temporal transformation is triggered without determining a radical shift in the technology of time and speed, but, “[w]hat actually drives them is their use by ‘capital’ to secure, extend and obscure the exploitative and distributive mechanisms through which inequalities or wealth and power are reproduced in the contemporary world” (Rosenberg, 2000: 165).

Both the neo-liberal and post-modern approaches to globalization and virtual organizations largely ignore, and fail to come to terms with, these forms of capitalist activity. Both the neo-liberal and post-modern approaches to globalization and virtual organizations are enveloped by the clouds of virtual consciousness, obscuring or mis-directing, one from focusing on what is happening in relation to such matters as inequalities of wealth and power while tantalising us with the possibility of being released from our physical constraints by computer and other technology and of being included in an emancipated workplace which is so unavoidable and so attractive that it subsumes life itself. Fragmented post-modernism is susceptible to the restless, transforming and co-opting pluralism of capitalism. The post-modern exhibits a fundamental attraction to the capitalist marketplace, identifying with its logic of “pleasure and plurality, of the ephemeral and discontinuous, of some great de-centred network of desire of which individuals seem the fleeting effects” (Eagleton, 1996: 132).

THE IMPRACTICALITY OF VIRTUAL ORGANIZATIONS

The collective consciousness of globalization and virtuality captivates neo-liberalism and the post-modern as one approaches the third millennium. However, as the Twentieth-First Century dawns, this consciousness seems dis-connected from practical reality. As
Rosenberg (2000) indicates, theoretical globalization is fundamentally in error. Hirst and Thompson (1999) and Hay and Marsh (2001) represent many other commentators who are sceptical about the existence of economic globalization. Hirst and Thompson (1999) and Hay and Marsh (2001) indicate that many concerns had been raised about the mythic or illusionary nature of globalization, particularly its ability to defeat the tyranny of distance or overcome existing economic, political, social and cultural conditions and activities based on intransigent, physical reality (see also Perraton, 2001). This uncertainty extends to doubts that globalization is the inevitable result of an historical process of revolutionary transformation. The supposed major, causal factors - technology, especially information technology; the spread of media and communications; the opening or transcending of borders; and the introduction of economic, political and social freedoms are very difficult to assess and are uneven in their effects. In fact, the global epoch has not yet seen off the nation state nor has it yet dramatically transformed existing industries and organizations.

In practical terms, as Aksu and Camilleri (2002) argue, the most important world-wide issue is not the increasing convergence of time and space, via virtualized social and economic interrelationships, but the increasing world-wide social and economic inequalities stemming from uneven exploitation. The essential practical rationale for virtual organization seems inherently compromised. Global industries and the new wave of technological-based operations are not becoming more virtual. Global competition is still risk averse. The crash of the Internet bubble demonstrates the exaggerated claims made for businesses that have supposedly moved beyond the constraints of specific locations and depletion of physical and other assets. The much-lauded new, global industries based on media and image/sound manipulation or bio-genetics are not sites of the flourishing, creative, dis-assembled, flexible, perfect markets open to everyone. Rather, they are dominated by gigantic corporations which grow by takeover and mergers, not by innovation.

Smaller players flutter around the conglomerates sometimes finding favour but most often being crushed by their inherent lack of market power. Single, global markets are resisted - for example, DVD’s and film/media launches are based on regions. The democratic, creative possibilities of easily-repeatable, digital code are resisted by legal sanctions and the extension of restraints on intellectual property. The American economy is so dominant that it sucks in capital and other resources from the rest of the world. The dis-embodied knowledge economy is all too susceptible to the dictates of time and space and tacit knowledge resists capture by electronic devices. As Albrow (1996) distinguishes, global consciousness is an elusive, if not empty, form of consciousness. Beyond global warming, there are few, if any, other global effects affecting everyone equally whatever their location on the planet. Albrow (1996) observes that any apparent form of global or cosmopolitan identity, where individuals or groups put global concerns above traditional concerns, is shallow. Individuals and groups retreat into ethnic, religious, racial and other national or sectarian identities when placed under any significant political or economic pressure.

Even more significantly, there is no evidence that this consciousness is accompanied by any practical manifestations of the ideal-type of virtual organizations seemingly derived from the seminal work by Davidow and Malone (1992). Virtual organizations with the expected characteristics are few and far between. More evident are organizations that, while technologically enabled, rely on physical assets and physical presence. The ideas of the new, the gilded youth of Reichian (1992), symbolic analysts are not being instantaneously translated into reality by a global system of ever-changing, ever-evolving virtual organizations. There is no clarity about managing internal and external global networks where competition is to occur 24/7 - twenty four hours, seven days every week. There is no evidence of the networked, virtualized, fused, group mind as the means of directing and operating virtual organizations. More apparent is the confusions associated with the worse excesses of matrix organizations compounded by the additional rigidities about managing internal and external global networks where competition is to occur 24/7 – twenty four hours, seven days every week. There is no evidence of the networked, virtualized, fused, group mind as the means of directing and operating virtual organizations. More apparent is the confusions associated with the worse excesses of matrix organizations compounded by the additional rigidities about managing internal and external global networks where competition is to occur 24/7 – twenty four hours, seven days every week. There is no evidence of the networked, virtualized, fused, group mind as the means of directing and operating virtual organizations. More apparent is the confusions associated with the worse excesses of matrix organizations compounded by the additional rigidities about managing internal and external global networks where competition is to occur 24/7 – twenty four hours, seven days every week. There is no evidence of the networked, virtualized, fused, group mind as the means of directing and operating virtual organizations. More apparent is the confusions associated with the worse excesses of matrix organizations compounded by the additional rigidities about managing internal and external global networks where competition is to occur 24/7 – twenty four hours, seven days every week. There is no clear set of workable design guidelines for virtual organizations, especially any which relate strategy, information systems and management accounting. The works of Bartlett and Ghoshal (1989) and Prahalad and Doz (1990), in organizational strategy, Jarvenpaa and Ives (1994), in organizational information systems, and Dent (1996), in management accounting systems, present the only related attempt to provide organizational design guidelines for what appears to be the most viable of virtual, organizational characteristics; namely, the use of extensive computer and information technology, flexible management and work arrangements to design flexible organizations.

Virtual consciousness is also problematic in relation to the basic building blocks of competitive, organizational strategy, information systems and management accounting. There is no clear set of workable design guidelines for virtual organizations, especially any which relate strategy, information systems and management accounting. The works of Bartlett and Ghoshal (1989) and Prahalad and Doz (1990), in organizational strategy, Jarvenpaa and Ives (1994), in organizational information systems, and Dent (1996), in management accounting systems, present the only related attempt to provide organizational design guidelines for what appears to be the most viable of virtual, organizational characteristics; namely, the use of extensive computer and information technology, flexible management and work arrangements to design flexible organizations.

Yet, the guidelines to design, what this group of authors terms trans-national organizations, are based on a simplistic and confusing approach to charting the movements in non-domestic competition during the Twentieth Century. According to this inter-connected
group of researchers, up until 80, when the uncertain, turbulent environments and technological improvements were increasingly apparent, successful organizations needed to fit their organization/management structures and systems and information and accounting systems to the one, dominant, competitive force - for the multinational or colonial (1920-1950), responsiveness to local conditions, for the international or American (1950-1960), innovation, and for the global or Japanese (1960-1980), centralized economies of scale.

Post 1980, the turbulent, competitive environment and rapidly developing information technology required a trans-national organization or integrated network (1980 - to date), serving world-wide customers and attending to all the competitive factors which had been individually decisive earlier in the Twentieth Century. In a revolutionary change, organizational design was no longer based on fit and efficiency. Yet the proposed forms of organizational flexibility were more related to the purposeful imprecisions within virtual consciousness than to any precise, workable guidelines for designing organizations which respond to environmental complexity.

Virtual consciousness offers the certainty that globalization provides an epoch of economic opportunity and prosperity drawn from the transforming power of computer and information technology and flexible work practices which are fundamental to virtual organizations.

Perfect competition implied in many depictions of flexibility and virtuality is not the real goal. As Hamel (2000) indicates, "industry revolutionaries start with an assumption that the entire goal of strategy is to create imperfect competition. To them, strategy is about the design principle is well entrenched in many organizations. Despite the exhortations of Bartlett and Ghoshal (1989), and others, to the contrary, flexibility as a form of constant re-making or constant revolution is not easily achieved in world-wide organizations.

The use of flexibility to design trans-national and virtual organizations remains an area highly contested. The use of fit as the key design principle is well entrenched in many organizations. Despite the exhortations of Bartlett and Ghoshal (1989), and others, to the contrary, flexibility as a form of constant re-making or constant revolution is not easily achieved in world-wide organizations. Organizations engaged in the most tempestuous of world-wide industry tele-communications seem to be increasingly concerned with scale efficiencies and the shaping of the environment to remove risk rather than the need for flexibility. In fact, many domestic and world-wide organizations have given up on custom-designed information systems in favour of off-the-self solutions from providers such as SAP. This not only entrenches the external provider's notion of what constitutes industry best practice but also, further, erodes an organization's human and systems resource capacity to respond quickly, and in a flexible manner, to changes in the competitive environment.

Even the most enthusiastic proponents of the need for constant re-invention of organizations, in order to ensure success, acknowledge that fit is still crucial and that supposedly old-fashioned strategies could still hold sway. Indeed, Hamel (2000) suggests that a company with mediocre performance is a company where elements of its business model work at cross-purpose and that the perfect competition implied in many depictions of flexibility and virtuality is not the real goal. As Hamel (2000) indicates, "industry revolutionaries start with an assumption that the entire goal of strategy is to create imperfect competition. To them, strategy is about building quasi monopolies" (Hamel, 2000: 98).

Virtual consciousness offers the certainty that globalization provides an epoch of economic opportunity and prosperity drawn from the transforming power of computer and information technology and flexible work practices which are fundamental to virtual organizations. However, no related global upswing in productivity is evident. Wolfson (1994) develops an approach to the economic history hypothesis of long-wave economic upswings resulting from developments in the institutional and organizational development of new, money-trade-production, social structures of accumulation (SSA). O'Hara (2001) outlines what Wolfson (1994) indicates new, global SSAs require - three institutional and organizational-based conditions to be satisfied. Sufficient stability must be obtained via the International Monetary Fund's aim to promote financial (and social) stability. A suitable level of conflict resolution must be obtained via the World Trade Organization's brief to resolve trade conflict. Adequate profitability must be obtained via revolutionary increases in productivity from the wide-spread introduction of flexible work arrangements and flexible, intensive communication and information technologies.

This approach is predicated on massive improvements in computer and information technology and radical improvements in the flexibility of organizations, providing the conditions necessary for the rise of a new, global, money-trade-production and SSAs which would create long-wave upswings in the world economy. However, the global upswing proposed by Wolfson (1994) is not yet apparent. In O'Hara's (2001) view, the International Monetary Fund is making some progress towards greater economic and social stability, the World Trade Organization is making halting progress towards conflict resolution but the flexible system of production and technology is still inadequately developed to support long-term industrial productivity and profit. According to O'Hara (2001), neither computer and communication technology, nor flexible work arrangements, are up to the task.

It would seem that these problems are more suggestive of fundamental flaws within virtual consciousness. The interaction of computer and information technology and flexible work practices are sources of low and/or negative productivity and/or operational and/or more widespread organizational failures. Global productivity improvements due to the widespread adoption of information and
communication technology, in association with flexible work arrangements have not eventuated. This lack of the expected revolution in productivity imperils any possibility of a new global era of unrivalled economic prosperity.

Flexible management and work arrangements, drawn largely from Japanese manufacturing practices, have not been successful in every industry which had sought to introduce them. Deep utilization of these techniques is still mainly restricted to Japan and other nations have a partial incorporation of these processes. Mansfield (1992) found that these flexible arrangements are best suited to organizations with mid-volumetric production of a family of related products. The development of flexible information and computer technologies are even less successful in generating productivity improvements. O’Hara (2001) found that while information and computer technology has aided productivity in its own and related sectors, these improvements have not flowed into other sectors. Flexible management and work systems and flexible information and computer technology have not re-asserted the productivity levels of the late 1960s.

Gordon (2000) argues that the current information and computer technology evolution is a pale imitation of a major technological revolution compared with the applications of electricity, the automobile, airplane, chemicals, telephone, radio television, sanitation and plumbing in previous ages. However, computer and communication technology is consuming increasing amounts of limited organizational funds. Computer and communication technology is increasingly used in flexible workplaces by part-time and project workers, or the techno-stressed, who have difficulty adjusting to the changing needs of the organization and the changing configuration of the computer and communication technology used within the organization.

It would seem difficult to sustain that the use of computer and communication technology in virtual organizations leads to the inevitable elimination of exploitation or conflict within organizations. Increasingly apparent is an underlying strange contradiction. Virtual organizations, with their changeability and supposedly short-life span view people as both essential and disposable. Highly-educated, knowledge workers are needed to produce ideas and use the computer and communication technology to the best competitive advantage but they are not expected to be retained over the longer-time frame.

In virtual organizations, life-long employment is no longer appropriate. Employment is envisioned to be project orientated with computer and communication technology striving to capture and retain the most significant organizational knowledge, with workers moving seamlessly between assignments in various virtual teams. Virtual organizations would constantly be confronted with the challenge to locate suitable virtual workers and integrate them into new or on-going projects. Virtual workers would constantly be confronted with the challenge to locate suitable work while up-grading their skills, especially their computer and communication technology skills. This emphasis on continual, life-long learning is not passed onto those corporations which expect to benefit most from knowledge workers and virtualized work arrangements. Instead, the training burden has been born by resource-strapped, public-sector infrastructure, with much of the responsibility for the cost increasingly passed on to the individual worker.

The responsibilities placed on virtual or flexible workers are especially problematic when so much of existing social infrastructure is based on life-long employment with, for example, 25 year mortgages and no, or limited, personal taxation deductions for computer and communication technology equipment and/or re-education expenses. Additionally, as Sennett (1998) observes, the enduing pursuit of flexibility in organizations such as virtual organizations may have many adverse implications for individuals and the social compact. “How can mutual loyalties and commitments be sustained in institutions which are constantly breaking apart or continually being re-designed?” (Sennett, 1998:10) – and when flexible capitalism threatens to erode “those qualities of character which bind human beings to each other and furnishes each with a sense of sustainable self” (Sennett, 1998: 27). In all, the extent of these practical problems suggests, in Harvey’s (1990) terms, that the “shifts in [the] surface appearance” during the period of flexible accumulation represents neither a “solid transformation” nor a “temporary fix” capable of containing the contradictions of capitalism for the next generation” (Harvey, 1990: 189).

VISIBLE AND INVISIBLE ORGANIZATIONS

And here is my secret, a very simple secret; it is only with the heart that one can see rightly, what is essential is invisible to the eye (De Saint-Exupery, 1995: 97).

According to virtual consciousness, globalization is an inevitable historical framework or context where virtual organizations are the only viable organizational form. It is possible to remove the illusions that virtual organizations present a replacement for physical organizations and that human agents are not required in a globalized economy. The removal of these illusions allows a more realistic appreciation of virtuality and virtual organizations. This appreciation indicates that many of the characteristics of virtual organizations are not new and exist currently, and previously, in other organizations. It is possible to compare these extensive, if not outlandish, claims about virtual organizations with a wider set of organizations that seem to be virtual but are not, commonly, presented as being separate from existing physical reality or part of a new era of non-physical reality. These organizations include terrorist and criminal organizations, military and intelligence organizations, religious and family organizations and regulative and educational organizations. These organizations have the characteristics commonly associated with virtual organizations, even including a mastery of cyberspace and the global, digital domain. Yet, these organizations, such as terrorist organizations and organised crime, have existed for a long time, are not always benign or transcendent and most often rely on human and social interactions.

The “Virtuality” of Al Qaeda and the Mafia

In the aftermath of the events on September 11, 2001, George W. Bush (2001) stated that bin Laden’s “al-qaeda is to terrorism what mafia is to crime”. As President Bush and other leaders have discovered, criminal/terrorist organizations and criminal/terrorist activities are hard to “see” and locate. It is difficult to escape the view that both types of organizations are involved in illegal, if not repulsive, activities. As Sifakis (1999) indicates, stereotypes and dis-information are pervasive about these organizations. Vidal (1992) demonstrates how media images of organizations such as the Mafia prevail over, and even replace, more balanced accounts. The sensationalism involved in most media response to criminal and/terrorist organizations makes it almost impossible not to respond in ideological and emotional terms (Parker, 1995). However, both the Mafia and al Qaeda are involved in many legal businesses and many of the illegal businesses that they are involved in are legal or admired in many nations or among specific communities. Organized crime and many terrorist organizations are involved and maybe have substantial positions in a number of the world’s...
largest industries - arms smuggling; people smuggling; prostitution; money laundering and illegal drugs - and both make extensive use of cyberspace and information technology.

Criminal and terrorist organizations are not new. Secret organizations and illegal activities have very ancient roots. The first secret police force was set up, in Sparta, during the fourth Century BC, in order to remove or regulate criminal and terrorist organizations and activities. Sifakis, (1999) and Morgan (2001) indicate the long and co-mingled tradition of bandits and freemasons. Sifakis (1999) discovers that the Italian Mafia has its origins during the Eleventh to Thirteenth Centuries, as a middle-class, nationalist movement, against foreign occupation and that the American Mafia, or “organized” criminal networks are a more recent, post-1920s event. Morgan (2001) uncovers that terrorist organizations originate in Twelfth-Century myths about assassins. These organizations are very effective. Both organized crime and terrorist organizations have been involved in an extensive range of legal and illegal businesses (Powers, 2002). As Parker (1995) observes, there are “trillions of crime dollars floating through the system” (Parker, 1995: 339). The Mafia is in big business but never signs a contract (Parker, 1995). Bergen (2001) indicates that terrorist organizations also have extensive experience of global financial flows and global, supply chains. Many terrorist and Mafia members, and their legitimate business operatives, have extensive education in business schools and other sites of higher learning. Bin Laden is educated in civil engineering and economics and has experience in his family’s billion-dollar construction company.

Criminal and terrorist organizations are information orientated and politically savvy. They are closely connected to suppliers, governments, regulatory bodies, financiers, distributors and customers. Mafia and terrorist organizations value relationships and value marketing over branding and advertising. Both types of organization are highly opportunistic and could change locations and configuration rapidly in response to movements by consumers within the regulatory environment. Sifakis (1999) found extensive flexibility within Mafia networks. Many members are effectively franchises and the network, itself, is dynamic and, in “some sense, independent of its own members” (Sifakis, 1999: xiv). This adaptability is assisted by the existence of a flat hierarchy. The Mafia has 4/5 hierarchical levels. By way of comparison Davdow and Malone (1992) extol how General Motors have “virtualized” their organization by reducing 12-15 hierarchical levels down to four. Radu (2002) considers that al Qaeda is a hybrid, intelligence service/army, multinational with a flexible workforce adaptable to the requirements of many different projects.

For both criminal and terrorist organizations, information is the basis of their operations. They benefit from the technological and organizational advances derived from military and intelligence expenditures. Information technology is used to capture, analyse, distribute and action information, often in close contact with government and military operations. They have access to much of the technology of virtual war, documented by Ignatieff (2001). Many members and operatives are highly-educated, knowledge workers (Bergen, 2001). These knowledge workers are able to use the latest technology, often in combination with earlier technologies, to achieve the ends of the organization (Parker, 1995: 336). Mafia and terrorist organizations have major interests in surveillance and simulation technology, including account records and audit trails. Organized crime and terrorist organizations use web/digital technology to enable legal and illegal activities and to make themselves much harder to detect.

Bergen (2001) argues that teams, or cells, are the fundamental organizational unit of terrorist organizations. Terrorist and criminal organizations are quite small, commonly ranging from one person to just a few thousand in any organization. According to Sifakis (1999), the largest American Mafia organization, the Gambino family, had only 150-300 “made men” at the height of its influence. Teams, or cells, in terrorist and criminal organizations are often composed of multi-skilled workers in association with specialists. These teams experience high levels of training and indoctrination. These shared experiences and allegiances to codes of conduct reinforce mutual trust and reliability (Ianni, 1998). These teams are often self-directed or autonomous and are activated via personal contact or technology. September 11, 2001 graphically illustrates the ability of seemingly dis-connected terrorist cells to carry out sophisticated, complex, highly-coordinated activities/missions without detection until the last possible moment.

Al Qaeda and other terrorist organizations seem to have no clear geographic location Bergen (2001). Parker (1995: 13) concludes that “[t]he mafia is everywhere and nowhere.” In a similar fashion, Sifakis (1999) complains that it is difficult to locate syndicated crime. The Mafia seems to disappear into communities. Organized crime seems to be an elusive “network of agreements between groups” (Sifakis, 1999: 233). Everything seems to be very indistinct, uncertain. Decision-making is diffuse, within and between, Mafia families although there is some evidence of a “commision” resolving major disputes. Both terrorist and organized crime organizations can recruit non-core activates. Mafia (as well as al Qaeda) groups are inter-twined with other organizations and individuals in their supply and distribution networks (Parker, 1995). These organizations share information within networks, or “loose affiliations,” of other organizations and individuals who are some times friends and at other times competitors, often at the same time.

It is possible that terrorist and criminal organizations may be too secretive to be fully understood, especially with regard to how they maintain such high levels of commitment among members and others in their networks - even to the point of death. This is certainly the approach taken by Stebbins and Shani (1989) in regard to how the Mafia motivates individual members to carry out violent, criminal activities. However, Sifakis (1999) recognizes the extensive use of trust and mutual obligation in Mafia organizations. But Sifakis (1999) also considers that motivation of members and the carrying out of most unwritten contracts is not just a matter of trust. It is evident that individuals enter into organizations, even these types of “virtual” organizations, for a variety of reasons, including trust, but also for other reasons - fear, family ties, ethnic affiliations, money and ethical and moral concerns.

Mafia organizations combine trust with the strong use of personal/group, “the life” or community ties and monetary, familial debt and other patronage controls accompanied with the threat of ruthless punishment, violence and fear. Terrorist organizations use all these approaches to motivating people and ensuring arrangements are carried out. According to Morgan (2001), many terrorist organizations, including al Qaeda, incorporate strong sanctions and religious, ethnic, nationalistic and transcendent beliefs, such as joining the martyrs in paradise, as powerful tools to motivate people and to ensure arrangements are carried out. In both Mafia and terrorist organizations, the extensive and judicious use of trust, plus control (even extreme punishment), is based on personal connections and is carried out face-to-face and, also, if necessary, from a distance, via information and communications technology, in order to keep arrangements happening with least possible detection or disruption (Bergen, 2001).

Wherever possible, organized crime and terrorist organizations concentrate on a simple and a non-physically-evident infrastructure. The intention is to have no precise physical presence and to avoid drawing unnecessary attention. Bergen (2001) portrays al Qaeda as a holding company, bringing different network partners and various combinations of physical and non-physical assets together, to
complete various projects. Sifakis (1999) finds that the Mafia enters into similar franchise or sub-contracting arrangements. These organizations are very careful to hide behind other organizations or front operations and to use information technology to mask their real intentions. Both the Mafia and terrorist organizations seek to do things "quietly", via close contacts between persons.

As Parker (1995) indicates, quite often the Mafia is "seen" by law enforcement and by politicians but the Mafia cooperates with authority or corrupts individuals or agencies and keeps interference with their activities to a minimum. For over thirty years, J. Edgar Hoover maintained that there was no Mafia and no organized crime in America (Sifakis 1999). Laquatre (1999) observes that any separate physical presence for Al Qaeda is difficult to discern given the extent of the co-mingling with other organizations such as the Taliban and Islamic, religious schools.

Both criminal and terrorist organizations maintain an active presence in cyberspace or use it to simulate threats to other organizations (Bequai, 2002). These organizations make extensive use of "neutral" cyberspace to plan, finance and organize the real-time coordination of operations, political action and propaganda (Cohen, 2000). Between them, criminal and terrorist organizations carry out such a vast range of illegal and legal activities on a global scale in cyberspace. The following are just some examples and indicate a presence, if not control, of some of the largest global industries and activities. For example, the cyber-sex industry; the organ trade; the coordination of people smuggling; cyber gambling; protection rackets; corporate fraud and other white collar crime; stock swindles; money laundering; medical and insurance frauds; information technology extortion/sabotage; stolen credit cards; fake goods, and so on. The Mafia and Al Qaeda are most suited to the supposed "wild-west mentality" of the Internet age, where everyone appears to be equal in cyberspace. In fact, some organizations may be equal than others. Bergen (2001) proposes that Al Qaeda terrorists have better mobile phone and encryption technologies than their Western pursuers.

**Co-Production or Co-Destiny in the Virtual Organization**

Rather than simply being reducible to neo-liberal and post-modern mystification of virtual organizations, these criminal and terrorist organizations are more intimately related to the less elaborate, a more workable, type of highly-physicalized, co-destiny, virtual organization evident in Davidow and Malone's (1992) seminal text on the virtual organization. Davidow and Malone's (1992) approach to virtual organizations focuses on the use of Japanese-style management in relation to certain forms of tangible manufacturing, not on intangible services, on physicalized and constrained forms of flexibility involving co-destiny relationships between specific suppliers, distributors, employees and customers in specific networks. This presents a different approach to virtual organizations, where physical space and time matter and clustering is encouraged because workers and organizations have to be embedded within nourishing cultures and physical environments. Computer and information technology do not rule the organization and are restricted to value-creating activities within co-destiny networks. Workers are empowered and work in teams, but these arrangements are based on co-destiny relationships designed to drive out anarchy and complexity. Trust would be pervasive but would be about physical co-destiny and sharing information within a specific network.

In this unmasked form of co-destiny, virtual organizations may be highly flexible. Yet this computer and communications technology-enabled flexibility has significant constraints. Davidow and Malone (1992) propose that management should start with the customer(s) they want to serve or retain and structure or re-structure the company accordingly. The organization has involvement with as few suppliers, distributors and customers as possible in a long-term relationship of mutual dependence or, what Davidow and Malone (1992) term, co-destiny. Certain distributors would be involved in this exchange of information and the co-destiny relationship. Relationship marketing would concentrate on building value for specific customers, not on brand recognition or advertising. In this way the organization would return to pre-mass manufacturing traditions of combining customization/craftsmanship without any loss of the ability to operate at large volumes. Their model is the mass manufacturing of highly-crafted and highly-customized armaments made by Beretta, in Italy.

Davidow and Malone (1992: 3) expect that “…roots in the distant, artisan past can be built now thanks to latest innovations in information processes, organizational dynamics and manufacturing systems.” Time and space remain important. Virtual organizations abhor distance. Clustering is essential and specific co-destiny relationships are superior to autonomous contact via technologically-enabled portals or cyber markets. Workers would also enter into a co-destiny relationship with the organization. The management of virtual organization Gunaratna (2002) concedes that the inability to deal with “thick information", the resultant virtual organization (2002) propose that this teamwork (shared information) would extend throughout a specific, technology-enabled supply chain between employees, management, customer, suppliers and government. Within these specific supply chains, everything would appear to be in flux but there would also be an enveloping, ongoing, tight network of relationships involving the intimacy of co-destiny relationships.

Most apparent in co-destiny virtuality is a different approach to internal and external trust than that evident in the illusions of virtual consciousness. Davidow and Malone (1992: 9) are convinced that “trust is the defining feature of the virtual corporation”. They recognize the problematic nature of organizational trust - "we enter the murky world of management-employee trust that frustrated Frederick Taylor a century ago" (Davidow and Malone, 1992: 176). However, Davidow and Malone (1992) do not exhibit virtual consciousness’s reliance on free floating, amorphous notions of trust which are more likely to lead to fearful, exploited relationships rather than fulfilling, empowered relationships. Instead, Davidow and Malone (1992) define trust as being about co-destiny and sharing information within specific internal and external networks and spurn any disembodied trust not related to specific, co-destiny relationships. Those partners involved in supply-chain management and other networks must share tactical and strategic information (even actual cost figures) and must trust each other’s motives. The resultant virtual organization would be an “ever-varying cluster of common activities in midst of a vast fabric of relationships,” but these activities would have a sense of shared fate and would never be entirely de-physicalized or without a physical presence (Davidow and Malone, 1992: 7).

The purposeful mystification of virtuality and the obscuring of simpler co-destiny relationships within “virtualized” organizations, especially as it has been applied to virtual organizations operating in a global economy, is theoretically and practically dangerous, misleading and counter-productive. For example, Gunaratna (2002: 3) conveys that al Qaeda is a secret, mobile, cyber-sophisticated "virtual" organization and he draws attention to the fact that virtual organizations are not just new, benign or technologically advanced. Gunaratna (2002) warns us to the fact that al Qaeda is not a medieval rabble, but is wealthy, educated, cosmopolitan organization and can master the technological and organizational complexities of the ever-evolving type of organization.
Even more importantly, Gunaratna (2002) expresses concern about al Qaeda’s ideological strength and its ability to promulgate, or co-opt, Islamist, Jihad ideology. This ideological strength relates to the co-destiny aspects of virtual organizations which are usually obscured by virtual consciousness. It is this ability to positively and negatively motivate followers to sacrifice their lives, to blend them into supportive social and religious networks and to use basic tools such as box cutters to achieve maximum effect that poses a greater threat than the extensive use of mobile phones, surveillance equipment and lap-top computers. The danger of considering al Qaeda a de-physicalized virtual organization is that one attempts to combat it in an equally de-physicalized manner, favoring electronic surveillance over field craft and remote, elaborate technological solutions over directly confronting physical presence and accompanying ideology.

It is possible that the Central Intelligence Service (CIA) failed to stop the September 11, 2001 terrorist attacks because it relied on non-physical, virtual techniques. Not long before the attacks, the CIA had been re-engineered to minimize the traditional reliance on physical operatives and informers and assist the information technology-enabled flow of information from web and digital surveillance and simulation. However, according to Powers (2002), this increasing virtualization left the Agency even more remote from the field, over reliant on technology, inward looking and favouring technocrats and analysts over field officers. The movement to a virtual organization meant that the CIA has neglected some essential physical issues. As Bergen (2001: 249) points out, the “CIA probably does not have a single truly-qualified, Arabic speaking officer of middle-eastern background …able to play a believable Muslim, fundamentalist [who would] volunteer to spend a year of his life with shitty food and no women in the mountains of Afghanistan ……most officers live in the suburbs of Virginia”.

It would seem that the CIA may have been caught up in a fantasy of cyber, web or digital-enabled surveillance and simulation and has neglected its own origins in physical tradecraft. But, as Berkowitz (2002) suggests, a simple return to a network of paid informants may not be sufficient to eliminate future intelligence failures. More probably, the CIA requires a new combination of information technology-enabled taps and close assessment, via information technology, in order to match al Qaeda’s tight combination of highly-motivated, physical and high-technology, non-physical, assets apparent in its distinctive co-destiny approach to cyber, web or digital virtuality. The danger confronting the CIA and other organizations intending to enhance their non-physical presence and to become wholly or partial virtual organizations is that such technology-dependent organizations, even when simplified down to their essential, virtual elements, still remain, what Radu (2002) terms, hydroponic organizations which require on-going, physical nourishment and embeddedness in social relationships in order to thrive. The only way to terminate al Qaeda may be by terminating the physical aspects of its virtual links (Radu, 2002).

Visible and Invisible Organizations: Towards a New Taxonomy

A more adequate theory is required to place virtual organization in a context that is separate from the mystifications of virtual consciousness. Wood (1995: 11-12), reflecting on the work of E. P. Thompson, argues that due to an unholy alliance between “capitalist triumphalism” and “socialist pessimism” and the apparently “defeatist pessimism” of post-modernism, “[c]apitalism is becoming so universal, so much taken for granted, that it is becoming invisible”. This ability to be as invisible as possible also applies to organizations, especially virtual organizations. Virtual organizations use the presumed conditions of global capitalism and the support of virtual consciousness to become “invisible”. The virtual organization needs to make everything as invisible as possible. Wood’s (1995) insightful analysis suggests a new classification of organizations into visible and invisible organizations. It is possible that a more useful and enduring alternative framework for organizations could focus on the visible and invisible aspects of organizations.

Many organizations have a continuing need to determine what aspects of their activities should be made visible or invisible. Adopting this analytical framework reveals a much closer on-going relationship between so-called virtual organizations and other distinctly invisible organizations with partly, or completely, hidden and secret activities. This approach allows a much more appropriate connection between physical (often visible) organizations and virtual (often invisible) organizations. This approach allows all organizations to be assessed on the underlying reasons for why they adopt visible or invisible configurations in all, or some, of their operations. This methodology stresses continuity without destroying the possibility of the emergence of radically, new organizational forms within the context of evolutionary or revolutionary disruptions in the environment.

This visible and invisible organizational classification is pragmatic and relates closely to every day organizational concerns. Organizations are always hiding some activities - polluting, tax minimization or tax avoidance and keeping some information from competitors or regulators, while making some activities visible - brand names, promotional and public relations campaigns. Significant economic activity has been consistently hidden (yet known) in the “Black Economy,” even when such activities are larger than many mainstream industries and include enduring human activities such as sex, drugs and gambling. This organizational classification relates to strategic, tactical, operational and other, on-going, decisions organizations continually make about what will be seen or unseen, how to stop being seen or to make sure one is seen and where physical and non-physical assets should or should not be located. It relates to those moments of truth, or fear, when customers, suppliers and others interact with the organization. Sometimes, organizations want to make apparent extreme effort has been put in by the organization and other times organizations want everything, as in the British Airways slogan, to just seem to happen with a minimum of fuss.

One must strive to comprehend who benefits from regulating what is visible and invisible and why, currently, the most appropriate way of controlling the balance between visibility and invisibility is focused on the supremacy of the de-physicalized, virtual organization. One must examine why the dominant economic system, corporate capitalism, is attracted to controlling what is visible and invisible (especially to restricting one to a virtual future) and what power relationships are present when organizations and individuals are rendered visible or invisible. One should assess organizations on the underlying reasons for why they adopt visible or invisible configurations in all, or some, of their operations. Based on this criterion, virtual organization’s renunciation of hierarchical, physical arrangements is a purposeful attempt by corporate global capitalism to hide, or deny, the physical constraints that condition or prevent the exploitation of human knowledge and labour behind the false promise of an enveloping new, benign and transcendental epoch.

This involves a different approach to classifying organizations which is not submerged by the “virtual consciousness” of the presumed rupture between out-moded hierarchical organizations and transcendent, virtual organizations which command the present and the
future. One needs to recognize the existence of visible and invisible organizations. One must also recognize the existence of organizations with visible and invisible aspects. One needs to acknowledge that visibility may be physical or non-physical and that visibility and invisibility will be affected by consciousness and perception. Equally, invisibility may be physical or non-physical. However, visibility does not automatically imply any form of subservience and invisibility does not automatically confer any form of transcendence. What is important is the purpose behind what is visible or invisible and why or why not one sees or does not see some organizations or parts of organizations as visible or invisible.

Virtual organizations are better conceptualized as organizations attempting to be invisible. Throughout history, organizations have been involved in a continuing flux between the physical (often visible) and the non-physical (often invisible). Both, or either of which, may be exploitative and emancipatory and are based or not based on trust, may or may not have boundaries, may or may not be networked and may or may not involve teamwork, may or may not be self-governing, may or may not involve extensive use of technology and may or may not exhibit decision making by the group or by a leader. Virtual organizations usually involve some physical activities, but these are usually rendered virtual, hidden or made invisible. Virtuality is not new, but represents another flux in balancing and re-balancing visible and invisible aspects of an organization.

The popular conception of virtual organizations presents an extreme case where corporate capitalism generates a virtual consciousness which masks many continuing, and some more recent, exploitative actions behind the supposedly new, benign and transcendent virtual organization. This virtual consciousness is almost impossible to put into practice. Even though this virtual consciousness is impractical, it serves to deflect attention away from continuing physicalized and other de-physicalized forms of exploitation. Even with knowledge workers, the new masters of the universe, virtual consciousness, with its mantra of constant, technological-based, change and organizational efficiency, there is evidence of increased fear, stress and anxiety. Virtual consciousness unleashes corporate capitalism’s darkest secret - its distaste for the unpredictability of physical humanity and represents its most fervent aspiration to transcend physical humanity. Unfortunately, so strongly entrenched is the presumed superiority of virtual organizations that, individuals, organizations and society have been on a ‘wild goose’ chase trying to make the virtual consciousness-induced virtual organization work.

Finally, while one may be able to demonstrate that virtual organizations have no clothes, virtual or otherwise, and that our past(s), present(s) and future(s) are more diverse, pluralist, more physical and unpredictable that anything imagined by global and virtual consciousness, one must remember that removing virtual consciousness, even when virtual organizations are tawdry illusions, will be an extremely difficult task. One must focus on the resilience of the co-destiny forms of virtuality within visible and invisible organizations. This will help one to look beyond the inadequate alternatives currently offered.

However, even if these portents of change are more than illusions, how does one ensure they are more than just another version of virtual consciousness? How do one ensure that there is more than Empire (Hardt and Negri, 2000) or the ‘Clash of Civilizations’ (Huntington, 1998) in real or virtual future(s)? Does exposing global consciousness and virtual consciousness defeat corporate capitalism? Does developing a neo-Braverman (1974) expose of virtualized, working conditions which incorporate post-modern exploitation. Even with knowledge workers, the new masters of the universe, virtual consciousness, with its mantra of constant, technological-based, change and organizational efficiency, there is evidence of increased fear, stress and anxiety. Virtual consciousness unleashes corporate capitalism’s darkest secret - its distaste for the unpredictability of physical humanity and represents its most fervent aspiration to transcend physical humanity. Unfortunately, so strongly entrenched is the presumed superiority of virtual organizations that, individuals, organizations and society have been on a ‘wild goose’ chase trying to make the virtual consciousness-induced virtual organization work.

Finally, while one may be able to demonstrate that virtual organizations have no clothes, virtual or otherwise, and that our past(s), present(s) and future(s) are more diverse, pluralist, more physical and unpredictable that anything imagined by global and virtual consciousness, one must remember that removing virtual consciousness, even when virtual organizations are tawdry illusions, will be an extremely difficult task. One must focus on the resilience of the co-destiny forms of virtuality within visible and invisible organizations. This will help one to look beyond the inadequate alternatives currently offered.

However, even if these portents of change are more than illusions, how does one ensure they are more than just another version of virtual consciousness? How do one ensure that there is more than Empire (Hardt and Negri, 2000) or the ‘Clash of Civilizations’ (Huntington, 1998) in real or virtual future(s)? Does exposing global consciousness and virtual consciousness defeat corporate capitalism? Does developing a neo-Braverman (1974) expose of virtualized, working conditions which incorporate post-modern concerns with identity, such as provided by Ezzamel and Willmott (1998), assist one to eliminate the virtual chains of oppression? Does understanding the enduring interplay of visibility and invisibility in co-destiny, “virtualized” organizations best express the cooperative productivity which affirms the organizational potential of the life of the global multitude?

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