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Editors Podium — Don and Elizabeth Perrin

Table of Contents

EDITORS PODIUM

Drs. Don and Elizabeth Perrin

What is instructional design? I see it used constantly to describe teachers, students, artists, and media producers and others who are involved in the design of instruction. It is a term that has been used for half a century to describe some mystical or magical skill that produces exciting curriculum materials that are accurate, relevant and up to date. It is integral to the production of high quality learning media.

Jerry Kemp, then from San Jose State University, was an early advocate of the need for a systematic process for needs assessment, design, production, and evaluation – the basic elements of his instructional design model. Mager taught us to write objectives with criteria based on behaviors that are observable and measurable under predetermined conditions. Gagne enlarged upon the conditions for learning. Many educators added dimensions to the design model and some even conducted research to validate their findings. One of the most significant of these is the Keller model. His research found that clear objectives, their importance to the overall goal, and achievable by the learner were fundamental to success. If I were asked to create a model, it would combine all of these.

Some companies employ teachers on a part time basis and call them instructional designers. Others, like NetG, advertise for educators with a very specific level of training related to both curriculum design and interactive multimedia production. We need the involvement of teachers and specialists. The teacher's have daily contact with the realities of education institutions. The specialists can break new ground and prepare us for standards based diagnostic and prescriptive learning.

CYBERCENTRISM: A TELEOLOGY OF KNOWLEDGE MANAGEMENT DYNAMICS FOR THE VIRTUALLY-EXTENDED ENTERPRISE

by Lansing Alexander Gordon

ABSTRACT

With the advent of ecommerce and the growth of 'open' systems communications networks, managers in industry have been confronted by the assaults of technology, an evolving employee profile, and changing sets of leadership and motivational challenges. Corporate management architectures, so firmly built for the age of globalization, are today's ruins of the global village. The virtually-extended enterprise can no longer be managed with the tools of a lost era. A new management model is evolving that supports existing and future knowledge platforms and reengineers rather than retards knowledge creation and systems.

This chapter examines a Cybercentristic management model based upon a series of dynamics taken from past research, including collaborative workplace technologies, knowledge leadership methodologies, and knowledge sharer and knowledge sharing networks. These are contrasted against Geocentric values. The results of this discussion are keyed into a Cybercentric teleology, constructed to form the basis for future research into the knowledge management model heir-apparent for the cyber century.

Keywords: management model, virtual enterprise, open systems, software, manufacturing systems, networking, knowledge worker, Internet

INTRODUCTION

The author examines the evolution of knowledge management dynamics, focusing on the traits of the new knowledge worker. The paper sets precedents for the creation of teleological guideline focused on leadership, workplace collaboration, and knowledge sharing. These factors are set amid profound change in industry management modeling. As corporate fortunes turn for the better or for worse, the question is posed: “What combination of organizational change and new technology is required for a breakthrough in knowledge management?” (Earl & Feeny, 2000). In answering this primary research question, the author attempts to capture marketing strategies and management models within the knowledge management environment.

Today's virtual enterprise has evolved from Geocentrism (Pearlmutter, 1969), and the ruins of the global village ravaged by a burgeoning ecommerce economy with its workstations, server-centric systems integration, and corporate Internet/intranet open architecture networking strategies. The traditional,

hierarchical management models (See Green, Tull & Albaum, 1988), still currently operating in today's virtual enterprise, are self-destructing amid flattened management styles, downsizing, employee distrust, separatism, and a lack of company ethos. Lifetime employment is replaced by contracts and consultantcies, creating problems within the working matrix of a more youthful and diversified knowledge worker. The discussion centers around a determination of what may be going wrong with this new systems integration, and what new management mindsets and leadership initiatives can be brought to bear as enterprises attempt to extend themselves into the virtual arena. Enterprises are transcending from 'place', or terrestrially-grounded orientation, to a 'space', or virtually-extended orientation.

A technological discussion includes networking strategies relative to open knowledge systems interconnectivity, spanning the enterprise from the front office to the factory floor. New market entrants, as well as the virtually-extended enterprise, may require a revised set of leadership criteria and employee initiatives. A rationale is presented toward the construction of a teleology of trans-enterprise innovation dynamics along a wide if not complete spectrum of knowledge management and knowledge creation criteria. The teleology identifies definitive requirements and initiatives for successful knowledge management, within the Cybercentric model, and contributes to future assessments of change.

ISSUES

In the virtual enterprise working environment, the approach to understanding knowledge workers, how they are managed, and in what context of management model is varied, misunderstood, and consequentially, often mismanaged. What is at risk is the business organization’s ability to change and adapt. Social changes are as dramatic as technological and economic processes of transformation (Castells, 1996). In the new era of work, it isn't 'workplace', it's 'workspace'. The modern knowledge worker may be technology-intelligent but a non-conformist, membership-dependent (Suzuki, 1990) and difficult to manage. The strategic premises of global-versus-micro marketing or standardization-versus-localization (DeMooij, 1994) have reached a certain redundancy in light of the virtual Internet (Levy, 1997). The global village is in shambles. The burgeoning foundations of ecommercialism have risen in its place. Global organizational management hierarchies have crumbled into flat, lean, and efficient entities. Knowledge management and knowledge creation in the virtually-extended enterprise (VEE) are taking place in ethnic fiefdoms and centralized power nodes, with traditional working groups evolving into virtual communities (Tapscott, 1996). "Ethnic identity has been at the roots of meaning since the dawn of humanity. Identity is becoming the main, and sometimes the only, source of meaning in an historical period characterized by widespread restructuring of organizations, delegitimation of institutions, fading away of major social movements, and ephemeral cultural expressions" (Castells, 1996). People in the virtual workspace often organize themselves around a bipolar opposition

between the 'Net and the Self' (p.3). But, while ecommerce sets the pace, much of the value of traditional hierarchical business structures that used to engender employee loyalty, group merit, and achiever working models (Keegan, 1989)) have vanished.

The mechanisms for leveraging knowledge management and knowledge creation, sometimes called 'knowledging' (Savage, 1996), within the organization, are best understood when one perceives the historical evolution of management dynamics within the modern, upwardly spiraling business spectra. A quick corporate culture audit of most companies would reveal that, not only does management not know in which distinctive management orientation it operates, but, they also do not understand what might be necessary to move the firm onto a more favorable and progressive virtual path (Kiamy, 1993, Wang, 1994).

THEORETICAL PERSPECTIVE

This discussion examines the birth of virtual enterprise knowledge management principles within a new management model dependant upon the verities of a rapidly changing knowledge worker. This discussion is an attempt to examine new requirements of knowledge workers against old model concepts. Whereas segmentation is a 'descendant' process, where a population is split up into groups, a typology is an 'ascendant process'. A typology starts with individuals, and brings them together into larger and larger groups (Witt & Moutinho, 1989). This discussion establishes a relational base in research conducted by a recent paper that utilizes the typological spirit of this approach. A typology, however, connotes classifications of exhibited patterns (Brownlie, 1985) in a subject which may be still too young for research of this depth. The comparative framework used in this discussion is a Teleology (Sarantakos, 1993) which identifies common-to-specific relationships explained in general terms with future focus. Teleology is the study of ends, purposes, and goals (*telos* means "end" or "purpose"). In cultures which have an teleological world view, the ends of things are seen as providing the meaning for all that has happened or that occurs (Hooker,1996).

This chapter offers a teleological discussion, the requirements of which are based on past research by the Davenport, DeLong & Beers (1998) paper in the Sloan Management Review entitled *Successful Knowledge Management Projects*. In this study, the authors establish a 'typology' examining the differences and similarities of projects. The data was obtained from twenty-four knowledge management projects. The study identified factors characterizing a successful knowledge management project. These included the following: to improve knowledge access; enhance the knowledge environment; manage knowledge as an asset; create knowledge repositories; assess the technical and organizational infrastructure; link to economic performance or industry value, create a knowledge-friendly culture and motivational practices; have a clear purpose and language; create channels for knowledge transfer; and senior management support.

Using this study as a relational data base, a Cybercentristic teleology is the outcome of this discussion, paralleling, from these ten successful project factors, four major supporting dynamics: the knowledge sharer and the knowledge sharing network; collaborative knowledge leadership methodologies; collaborative workplace technologies, and; transcending the Cybercentric virtual-based platform.

CYBERCENTRISM: THE KNOWLEDGE-BASED, VIRTUAL STEP BEYOND GLOBAL VILLAGE DOCTRINE

The knowledge culture impact of a Global-turned Universal Digital Economy, today, is revolutionizing the enterprise, influencing a corporation's operations, working efficiency, and its people. "Workers are becoming smarter, more critical in their thinking, and more connected to the organization," writes Hinrichs (1997). A vast, network of supercomputers, linked by broad bandwidth fiberoptic cable to universities, teaching hospitals, scientific research centers as well as interfacing a 'universal' business environment is being built. Such a universal, knowledge-based architecture means a company can provide services and sell products in cyberspace to anyone, anywhere, at any time 24 hours a day, 365 days a year, in five major languages without leaving the office and without opening a branch office. "No matter how large or small the company or organization, the global barriers that have traditionally limited multinational transactions no longer apply" (Martin, 1996).

These systems will be both private and public in function. The Internet, a vast clearinghouse for individual, cyber community and business communications, is designed for public consumption to accommodate advertising and marketing. Hinrichs (1997) explains that the Intranet is created to strengthen the intelligence and capability of a private workforce, developing, disseminating and supporting products and services and is designed to focus on employees and improving their workflow. Managing these processes have taken on what the author calls a *cybercentristic* management orientation in a given knowledge environment. Cybercentrism (Gordon, 2000) is not only identified as the next management protocol in the virtually extended enterprise, it is also the dominant precept of a new 'acculturation' (Popper, Wagner, Larson, 1998), encompassing the issues of institutional change in value creation. Figure 1. shows linked strategic marketing orientations with management models.

Figure 1.

An Evolution Model of Marketing Strategies and Concurrent Management Models (Gordon, 1998)

MARKETING STRATEGIES	**MANAGEMENT MODELS**
Domestic/Regional	**Ethnocentrism**
International	**Polycentrism**

Multinational **Regiocentrism**

Global **Geocentrism**

Universal **Cybercentrism**

Generations of Management Models

Management attitudes of national and international companies responsible for establishing potential competitive advantages has been the subject of some research (Wind, Douglas, and Pearlmutter, 1973, Toyne and Walters, 1993). Howard Perlmutter (1969) of the Wharton School first identified the distinctive management orientations of international companies. He described these as his EPRG schema for management orientation as follows:

- **Ethnocentrism** is associated with a home country management orientation where overseas operations are secondary. Structure is complex in home country but simple in other countries.
- **Polycentrism** connotes a host country focus where subsidiaries are established in overseas markets. These are varied and independent.
- **Regiocentrism** relates to an integrated regional management approach…increasingly complex and regionally interdependent.
- **Geocentrism** is linked with an integrated world structure of continued physical growth and tied to centralized/decentralized management strategies. Highly complex and worldwide interdependent.
- **Cybercentrism** is the management of the highly interactive digital economic universe, capturing a 'real time' vision of market realities without physical size limitations to corporate operations or growth (Gordon, 2000). Cybercentrism suggest a re-examination of traditional knowledge cycles and strategic premises such as international product life cycles (IPLC) (Giddy, 1978), structures which are accelerating, with lost control of prototype skimming strategies (Toyne & Walters, 1993), and the competitive nature and structure of foreign markets (p. 60).

Cybercentrism is the model of the new, virtually-extended enterprise, evolving form previous models. "National markets, currency controls, and cumbersome communications processes made national (Ethnocentrism) or regional (Regiocentrism) selling organizations an appropriate structure 15 years ago. The globalization (Geocentric) of capital flows, communications networks, and the operations of corporate customers have rendered that model obsolete" (Slywotzky, 1995). Companies have been forced, in recent times, to reengineer themselves to meet the priorities of virtual customer segments, regardless of geography. The customer-centric structure that Slywotzky identifies "…must be identified accompanied by a strong problem-solving and customer service orientation. Companies that traditionally have been technology or product driven

must cultivate these skills within their organizations or acquire them externally" (p. 243).

The Changing Structural Requisites of The Knowledge Management Environment

Understanding the script of the new virtual enterprise is going to take more than just the occasional corporate culture audit. Traditional corporate culture audit criteria for today's knowledge manager rely on outdated Geocentristic concepts. The traditional EPRG (Perlmutter, 1967) concepts of the management orientation of the enterprise are being supplanted by new Cybercentristic concepts of the corporate vision. Figure 2 shows a traditional corporate culture audit listing paralleling Cybercentrism concepts that have changed the structural requisites of knowledge management for the new millennium.

Figure 2.

EPRG VERSUS CYBERCENTRISM: COMPARATIVE ASPECTS

- 1.A. Traditional EPRG: Count the age qualifications of a company by its founders and the time it was first founded.
- 1.B. Cybercentrism: Count the age of a company from the time of the most recent hiring of the newest employee and his or her qualifications.
- 2.A. Traditional EPRG: Identify your company by its location, as corporate location makes a big difference in employee and management expectations.
- 2.B. Cybercentrism: A virtual enterprise has a 'universal' identity, identifying with virtual market precepts and employee talents, and not with building or parking lot locations.
- 3.A. Traditional EPRG: Geocentric organizational chain-of-command foster labor practices with 'in' groups protecting information as a power source. Information flows up from the bottom and control flows down from the top.
- 3.B. Cybercentrism: In the virtual enterprise, information must be truly shared. 'Team' forms of knowledge organization are more cooperative and role-permeable, basketball or soccer-like, rather than American football-like teams (Hakken, 1999).
- 4.A. Traditional EPRG: The corporate history is focused on family-owned origins, multigenerational founders, and a legacy systems technological heritage. Mission statements demand adherence.
- 4.B. Cybercentrism: The ethnicity of the employee as an individual and in close working groups is more important than corporate origins. Knowledge creation constantly reinvents the company identity. Corporate culture is more a series of fiefdoms, each one with its own tech-speak language and working values. Cyberculture diversity and the speed of change transform mission

statements into a virtual ethos based on personal integrity (self-monitoring) and a fluid matrices of business ethics.

- 5.A. Traditional EPRG: Employees are rewarded based upon corporate-wide concepts of production output, efficiency, and standardized work ethic, and bestowed by company leaders.
- 5.B. Cybercentrism: Rewards are continually reinvented, and are as various as the knowledge workers' goals, and only valuable relative to the intensity of peermanship within that company fiefdom.
- 6.A. Traditional EPRG organizations were patriarchal, with working roles separate and distinct. Lines of responsibility are clearly drawn and job designations hold permanent responsibility value.
- 6.B. Cybercentrism: The Cybercentristic model is a flat, matrix organization where knowledge workers take on multiple roles in different projects, in some instances centered on their own preferences and talents, and where there is less permanent responsibility structure created over the short term and, usually, project-based.
- 7.A. Traditional EPRG: Internal and external business networks are operated dissimilarly, with each branch of the Geocentric organization utilizing omniscient knowledge bases and protocols.
- 7.B. Cybercentrism: The model of Cybercentrism conforms to similar internal and external networks. In fact, a key element in this virtual enterprise model is its singular, trans-enterprise network architecture which is extended, transparently, to the intranet/Internet.
- 8.A. Traditional EPRG: The Geocentric concept of 'workplace' is enforced by inflexible working schedules and job descriptions. Knowledge creation has its 'place' within physical walls and among hierarchical constructs.
- 8.B. Cybercentrism: Understanding the 'new cyber script' of Cybercentrism means that knowledge managers and coworkers exist in a virtually active culture. They may know each other only through tele- or videoconferencing. As consultants or contract workers, they may be geographically dispersed and interact with the company as telecommuters, mobile agents, remote contractors, acting individually or in teams.
- 9.A Traditional EPRG: Managers are considered enforcers, driving employees to 'work'. Organizations are geographically consistent with 'workplaces', and managers understand the concept of work as 'the job that needs to be done'.
- 9.B. Cybercentrism: Here there is a 'fuzzy logic' concept of the organization of 'work' and 'workspaces'. Geocentric model knowledge managers must act as catalysts, keeping the many separate virtual conversations going productively. The virtual knowledge manager is a mediator, a facilitator, and a monitor, identifying breaks or problems in the virtual stream of project-based information and ideas.

On this last point, the Cybercentrism management model consists of two key words: collaboration, and knowledge-sharing. These embody the breakaway concept of 'virtual teamsmanship'.

THE ACCULTURATION OF LEADERSHIP IN THE AGE OF VIRTUAL 'TEAMSMANSHIP': VITAL TO THE CYBERCENTRIC TELEOLOGY DYNAMIC

There is a "high-tech intimacy" (Yohalem, 1997) crisis in the ecommerce employment venue. Many leaders in virtually-extended companies see the computer as an instrument of depersonalization. The computer, some argue, allows the company to become less intimate with its employees and customers (Tapscott, 1996). Database marketing is nothing more than digitizing a mail order catalog. Issues with knowledge worker management evolve around a disconnection with the physical presence of authority. The "out of sight, out of mind syndrome" (Taormina, 1996), troubles with on-line feedback, managing worker conflicts with management policy and workload all must be overcome. And then there is the cultural mix factor. Creating motivation so important to knowledge creation in light of the limitations of the virtual workspace environment becomes exacerbated with confronted with culturally diverse working groups.

All too often, in the Cybercentric model, there is confusion with words like 'nation' and 'culture', where workers in a Silicon Valley software development company, for example, have citizenship in America but live and work in an insulative culture that is Indian, Pakistani, Spanish, German or Chinese. The term 'virtual knowledge villages' suggests something beyond national origin. Knowledge management in the Age of Virtual Teamanship, must examine the importance of Langdon Winner's (1977) sentiments that technologies have nationality, politics, and language. Technological abstractions for knowledge creation in Chinese can be remarkably dissimilar in 'structuralists' logic to, say, English, leading to the conclusion that forming a working team in a virtually-extended enterprise is filled with ethnographic glitches.

Invention and Leadership

Within the manifestation of the socio-technical division of work itself, there is a volatile distribution of acting functions among humans and the machines they encounter at work. The states of human subsystems and the characteristics of socio-technical relations are changing (Ropohl, 1999). "Every invention is an intervention, an intervention into nature and society. That is the reason why technical development is the equivalent to social change" (p. 11). The rate of change inherent the Cybercentric model can only aggravate problematic interface situations unless statutes of virtual leadership can be implanted that stake a claim to technology assessments, triage, and control.

The maturity of virtually-extended knowledge workers is a dominant issue in the search for leadership (Shectman, 1991). A system called 're-parenting' claimed to yield productivity from young employees. Young knowledge workers in the

virtual environment are a constant, ever-present force. The idea of adjusting leadership strategies relative to the maturity or immaturity of followers is part of a recommended strategy (Hersey and Blanchard, 1982). Leadership can be described in the light of two dimensions which can be based on the employee's maturity, which is defined as "the capacity to set high but attainable goals (achievement-motivation), willingness and ability to take responsibility, and education and/or experience of the individual or group".

ALTERNATIVE PROFILES FOR THE VIRTUAL KNOWLEDGE WORKER: TRAITS TOWARD THE PROPENSITY FOR KNOWLEDGE CREATION AND KNOWLEDGE SHARING

Earl and Feeny (2000) examine CEO “creeds” in identifying management fitness for the Information Age. Their diagnosis provides three levels of participation in CEO traits toward acceptance of the IT role in business. These include Practicing (scanning and understanding new technologies), Living (creating context), and Believing (IT as the first order of thinking). A CEO’s willingness to believe in the importance of IT for the enabling of new strategies and the employ of a CIO are examined. In the Earl & Feeny (2000) study seven tiers were established, ranging from “Hypocrite” to “Believer”.

A Shift Of Power

New parameters, for knowledge management and creation include recognizing the importance in the shift of power away from the corporate organization communicator and toward the individual knowledge creator. If what we are describing is a fundamental turning point in business knowledge management, then it must have scalability in human dimensions. The information society of the 1950’s saw large computer networks accelerating information processing and reducing distances between communicators.

> Wang (1994) notes, “Using a central computer to manage the communication needs of thousands of users across vast distances, traditional host-based computing made possible large multinational corporations. It helped create the modern switched telephone system and enabled human beings to walk on the moon. But times have changed, and the world needed a newer, more flexible way to communicate and share information. The large, slow moving hierarchical bureaucracies that were so well served by traditional computing yielded to smaller, flattened organizations. These fast moving, streamlined companies demanded more services and the power to chart their own destinies. The master/slave relationship of traditional computing, in which a small group of central administrators charted the course of thousands of voiceless users, obstructed the operational alignment of emerging companies. End users simply rebelled. With or without the co-operation of the centralized

data center, they built their own networks. A new system based on peer-to-peer computing appeared".

With independence should come responsibility. However, the virtual community has found a new freedom in its unrestricted and unregulated linkage. "In the field of technology, a renewal of individual responsibility is proposed as a remedy against the loss of a work ethic, the declining willingness to do communal service, the calculating character of the modern citizen, and the shameless self-enrichment in big business, the disintegrating family, the growing gap between the citizen and the politician, the decline of patriotism, and the difficulty of having shared values when even fewer people see themselves as religious" (Swierstra, 1997).

Pursuing the task of actualizing the virtual phenomenon in scalable, human dimensions, let us review several concepts of knowledge orientations including self-worth, socialization, and responsibility.

DIGITAL KNOWLEDGE-SPECIFIC TRAITS: A NEW SCRIPT OF SELF-WORTH

The value in constructing a typology of Cybercentrism is based, not so much upon assessing the output value of the new cybercentristic knowledge worker, as much as in discovering the new *script of self worth* within these new worker groups. It is here that we may acquire a sense for how management can flourish as a value-added catalyst

Social theories of classical working behavior have, traditionally, been based upon what Loudon and Della Bitta (1993) list as three major consumer orientations: Compliant, Aggressive, and Detached Orientation.

Essential to comprehending the possible variations of digital knowledge-specific traits, or DKST, is to understand the 'script' of self-worth (See Figure 3.) for the worker of the future and their possible orientations.

Figure 3.

Knowledge Worker Self-Worth Orientations

If you are a **Compliant Orientationalist** the script reads:

If it is good for you, and no one else, it is bad.

If it is good for you, and good for everyone else, it is good.

If you are an **Aggressive Orientationalist** it reads:

If it is good for you, it is good.

If it represents or provides an advantage or power for you and your ethnic constituency over the next person or group, all the better.

If you are a **Detached Orientationalist** it reads:

If it is good for you, it is good.

How it effects others beyond your sphere of influence has little significance to you.

(Source: Loudin & Della Bitta, 1993)

The Conditioning of The Knowledge Worker

The Cybercentristic script of self worth in no way nominates the sentimental favorite of the Compliant Orientationist. There are cultural movements that suggest, rather, a less ecumenical, and more fractured working environment. Taking an example from the media, the increasing number of global brands may imply that, over time, national cultures will become similar. At a superficial level this may be true, but fundamentally it is not (De Mooij, 1994). Superficial manifestations of culture are sometimes mistaken for deeper underlying values, which determine the meaning that various practices hold. Studies at the values level do not suggest a growing similarity between nations. Kotkin (1992) concurs on this issue, suggesting that working cultures are in the process of inversion, not extroversion. In what Kotkin calls "the vocation of uniqueness", some migrating groups like the Italians and Germans has great acquisition skills and were able to assimilate into cultures and even into elite classes easily. Global tribe cultures, especially Asians, have more trouble with assimilation. "Huge skilled Chinese and Indian labor markets will provide technological stimuli. The healthy migrations of populations with unique technological skills have been critical in the shaping of world cities. But, rather than dying off, with the rise of scientific progress, religious and ethnic sentiment remain, and at the outset of the twenty-first century, are remarkably resilient". There is general agreement (Dipboye, Smith, & Howell, 1994) where "…trends suggest that managers of tomorrow will not be able to rely on the formal authority that comes with their positions, but will need to be able to shift their leadership to fit the situation".

THE OADI CYCLE OF CORPORATE CULTURE: BARRIERS TO ORGANIZATIONAL LEARNING

Indifference may be cumulative in that a 'knowledge worker audience', once indifferent, would tend to stay that way. In what Giddens (1990) calls *the zoning* of social life and the *disembedding* of social systems, the failure of one transformational idea has the tendency to make, for that person or organizational group, future innovative ideas more prone to rejection (also see Rogers & Shoemaker, 1971). Individuals with negative attitudes influence groups or organizations in cyclic cynicism, denial or simple avoidance. Supporting this concept is work done by Kim (1993) linking individual and organizational learning and shared sets of models. His is a concept of an observe-assess-design-implement or OADI cycle, suggesting that most groups or organizations have

shared assumptions that protect the status quo, precluding people from challenging others, and providing silent assent to those 'approved' attributions. Argyris (1994) forwards a similar theory where individual 'actors' are confined to a set of shared models. It may be suggested that a negatively spun OADI cycle may be more prevalent in virtual enterprises where there may be a lesser or nonexistent presence of key authority figures on a daily basis, and where the leveling influences of interdepartmental frictions are not available.

In the virtual workplace, with its dispersed set of orbiting departments and constant Cybercentric diversity of workspace, time zones, languages, customs and work ethics, barriers to organizational learning is daunting. For knowledge management, indeed, knowledge leadership to not only exist, but to flourish, the measure may well exist in presence of what Snyder (1974) identifies as the "self-monitoring" individual or employee. Figure 4. shows these knowledge worker orientations.

Figure 4.

Implications of Knowledge Worker Responsibility .

The **high self-monitor** has a high sense of duty, sees his actions as impacting others and self-regulates his courtesy and conduct socially. Mayer and Sutton (1996) see him as the consummate politician who is attentive to the necessities of the moment. Snyder (1974) also sees his antithesis the **low self-monitor** as "…the epitome of the inward looking person…introspective of nature." The high self-monitor would, seemingly, have a high propensity for right social action; the low self-monitor a low propensity for social action required by Social Marketing commercial messages.

Social theories of consumer behavior have, traditionally, been based on what Loudon and Della Bitta (1993) list as three major consumer orientations:

- **Compliant Orientation**: consumers move toward popularism and stress the need for approval, empathy and unselfishness.
- **Aggressive Orientation**: consumers move against commonalties and stress the need for individual power and the ability to manipulate others.
- **Detached Orientation**: buyers remain uninvolved and revert to separatist, isolative consumerism with no strong emotional ties.

(Sources: Mayer & Suton, 1996, / Snyder, 1994) / Loudin & Della Bitta, 1993)

Snyder's extensive writings touch on the key elements when he writes, "The prototypic high-self monitoring individual is one who, out of concern for the situational and interpersonal appropriateness of his or her social behavior, is

particularly sensitive to the expression and self-presentation of relevant others in social situations and uses these cues as guidelines for self-monitoring his or her own verbal and nonviable self-presentation."

It was, more recently, Lazarus (1991) who forwarded his 'Cognitive-Motivational-Relational Theory' with the idea of a worker's sensitivity to the environment. A knowledge worker's emotions are, in affect, organized cognitive-motivational configurations whose status changes with changes in the person-environment relationship as this is perceived and evaluated (appraised) (p. 38).

Fiefdoms: Ethnic Tribes within the Virtual Workforce

Creating a real-time organization presents problems inherent in a diverse workforce. Technological advances play a most important role in altering the economic importance of certain geographical areas (DeMooij, 1994, p. 16). From India, China and other Asian countries come a growing number of talented workers with a glaring affinity for technology-related knowledge creation. They possess an intrinsic "hardiness" (Kobasa, 1979), or what we might call 'tech-temerity'. These culturally displaced knowledge workers thrive in the new tech-rich industries in high-tech nodes around the U.S. including New York, Boston, Chicago, San Francisco and Austin.

The ascendance of new tribes has been accelerated by three factors over the past four or five decades. One factor is the collapse, first of Western and later of Soviet imperialism. Another is a worldwide revival of interest in religion and ethnicity; and the increasingly transnational nature of the global economy. This has fostered the emergence of new and potentially powerful global tribes in parts of the world that had been considered backwaters (Kotkin, 1992). These “global tribes”, are identified as containing the old culturally rich human identities of what is now powering a new kind of working society with "man’s natural desire to project his *thymus*, or sense of personal self-worth, the driving universal motivation” Kotkin, 1992).

The concept of alienation takes on a proper focus in socio-technical systems. The uneasiness of knowledge workers with technical products, regardless of the relations of propriety, is an important reason for the "uneasiness of many people toward the utilization of modern technology" (Ropohl, 1999). But this may be a least impactful factor when considering national origin, native languages and culture shock. With the advent of ecommerce and the high demand of technological skills, many employees have been recruited from abroad. First and second generation displaced citizens from India, China and other Asian countries, and including Europeans, populate many of the hi-tech companies from as diverse locations as 'Silicon Valley', California to 'Silicon Glen' in Scotland. Knowledge workers have had problems with adaptation and responsiveness to leadership. Because of differences in lifestyles, life experiences, cultural heritage, and work ethics, and employment expectations, these minority employees perceive and respond to stress differently from the white majority and black and Hispanic majorities in the same working

environments. Stress researchers (Ford, 1985, and Ramos, 1975) suggest that minority groups suffer greater stress than majority counterparts.

There have bee investigations into the effects of work-related social support, or social support from management and coworkers, which have had positive effects on job attitudes, feelings of community and productivity. Higher 'supervisor' support, identified as a "buffering effect" reported fewer mental the physical problems (House & Wells, 1978). Extraorganizational support orchestrated by leadership, where aspects of culture were reflected in the food and theme/occasion of the event, strengthened work-related social support, especially among women (Etzion, 1984).

Creating Real-Time Organizations Amid Culturally Weighted Fiefdoms

Companies best equipped for the twenty-first century will consider the investment in real-time systems as essential to maintaining their competitive edge and keeping their customers (McKenna, 1997). Real time systems include the people who will operate them. Within the past 15 years there has been a growing presence of organizational and extraorganizational social support in the knowledge-intense workplace. Researches like House and Wells (1978) studied work-related sources of stress and social support against stress called a *buffering effect* helped prevent stress, burn-out among both genders (Etzion, 1984). "Control Coping" and "Escape Coping" (Latack, 1986) were associated with burnout. Control Coping included the use of control strategies that are proactive or take-charge in nature. Escape Coping was escapist or avoidant in nature. At this writing there has been little research addressing the consequences of work-related stress on foreign workers in the virtual enterprise. The author's experience has seen a curious combination of highly talented tech-temeric foreign worker at ease in the virtually extended enterprise high technology environment practicing Escape Coping related to cultural identity. The results of extended presence of cultural isolation, with its inevitable formation of race-specific fiefdoms within the virtual enterprise, may lead to isolation and resulting job dissatisfaction, high anxiety, and emotional and physical health problems.

THE SPIRIT OF LEADERSHIP RENEWAL: KEY TO THE CONSTRUCT OF A TELEOLOGY OF CYBERCENTRIC DYNAMICS

The Fall of Leadership amid the Ecommercialization of the Knowledge Worker Environment

By far the greatest loss, amid the migration from global-village doctrine to the virtually-extended enterprise, has been in the area of leadership. The 'transformational' and 'inspirational' leadership implicit in a "charismatic leadership era of the 80's" (Bass, 1990), has succumbed to mediocrity. Downsizing, a change from hierarchical to flattened organizational management

styles (Castells, 1997), and hiring practices have all contributed to the fall of leadership quality. High technology employers, today, do not hire the knowledge worker in the traditional sense. Workers sign time-limited contracts. Workers agree to consultation relationships with firms, and even enter into part-time or per-project working agreements. Tenure can be established by employees who work 'sacrificially' while software products are still in beta testing (KcKenna, 1997), but pay during these formidable times in the company's history can be minimal and the hours are long. Kim and Mauborgne (1997) discuss a salient point. "Knowledge cannot be forced out of people…creating and sharing knowledge is essential to fostering innovation, the key challenge of the knowledge-based economy". Their contention is that to create a climate where creativity and expertise is volunteered requires 'trust'. Links among trust, idea sharing, and corporate performance are decisive factors.

Leader Effectiveness in the Virtual Model

The world's top management and technology firms, talk about 'people partnerships' where today's virtual company replaces lifetime job security with a 'fresh' perspective. This perspective dictates that the company owns the work rather than the employee's career. The employee is responsible for investing in his or her own career and 'employability' in the marketplace. The employee and the company share in the forward success of the company, however disproportionate (McKenna, 1997). This working relationship may have a fairly negative impact on knowledge creation when the ownership of ideas is unquestionably that of the company.

This is especially true among the more youthful knowledge worker. Much of the functionality of knowledge management has great dependency upon the maturity of employees. Young employees can be among the more valuable in a high-tech firm. Maturity can be developed by what is called a "re-parenting strategy" (Shechtman, 1991) where the productivity of immature workers could be raised to acceptable levels in two to three years. The structural weakness inherent in the virtually-extended enterprise is that the employ of younger workers under the 'people partnership' agreement has its dependency in the foundational premise of maturity and "the capacity to set high but attainable goals, and the willingness and ability to take responsibility" (Hersey and Blanchard 1982, p. 161). Leader effectiveness in wielding influence in this environment is minimal. High employee turnover is evidence not only of healthy economic times, but also of the inability of leadership to retain workers.

Areas of difficulty in leadership development in the virtually-extended enterprise have evolved from a transformation in both the formal structure of the organization, and the methods of employee association and compensation. There are five major identifiable areas of leadership behaviors (Podsakoff, MacKenzie, Moorman, & Fetter, 1990) where virtual enterprise leadership can enhance the proliferation of knowledge management and creation.

Providing an appropriate leadership model: The knowledge manager cannot conceive of a complete management structure in the virtually-extended enterprise without addressing the principles of leadership. Although cyber-social relationships are said to be, today, less formally organized (Hakken, 1999), leadership has not lost its impact on the pace and quality of knowledge creation. Their structure and roles of responsibility are more flexibly mediated. There is greater difficulty, in this casual and more liberated working environment, to establish enforceable models.

Identifying and articulating a vision: Computers change organizations (Gilster, 1997), but they do not and cannot 'make' organizations. The extent of leadership charisma is positively related to the leader's need for power (Dipboye, Smith, Howell, p. 278). Today's executive is, in many cases, the creator of the technology the company is built upon. The need for power and scientific, technological expertise are a rare combination.

Fostering acceptance of group goals: Leaders in the virtually-extended enterprise are confronted with employee groups cautious of ethnic, age, or technological differences and unwilling to cooperate. Foreign workers have different life experiences, values, beliefs, and come from different educational systems (Pasternack and Visco, 1998). These fiefdoms, inherent within the fabric of the virtual organization, defy the accepted concept of 'working group' in the workplace, and must be approached differently. Training programs to include appearance, body language, and verbal skills, with an emphasis on metaphors, analogies, and paralanguage (Conger & Kanungo, 1988) can help leaders express confidence to subordinates and enjoin diverse participants.

Providing individualized support: A broader understanding of the characteristics of computerized employment organizations is needed before any specific conclusions regarding the cyber-social relationships can be concluded (Hakken, 1999). However, traditional organizational hierarchies have flattened to the point where the term "chain of command" (p. 122) is an oxymoron. Virtual workplaces are, in many instances, matrix in architecture, with employees taking multiple roles based on personal preferences and with no permanent responsibility. Traditional mentor relationships simply do not exist in this flattened environment. Knowledge management in the virtual office subscribes to individually franchised professionals who are relatively omniscient. Self-determinable career paths erase the leader-follower construct. Individualized support survives in casual instructional opportunity, and in-office tech-peermanships.

Intellectual stimulation: Reexamining assumptions and rethinking how work can be performed reflects the "path-goal" theory (House and Mitchell, 1975, p. 455). At the heart of the 'achievement-oriented leader' is stimulation of the intellect of the employee. Knowledge management, at its very core, is anchored in job satisfaction. In the new environment of the virtual organization, sources of intellectual inspiration most likely come from 'soft' leadership sources. "High-authoritarian" and "low-authoritarian" subordinates (Schuler, 1976) can be found in almost every type of industry except where the virtually-extended knowledge

worker is employed. Here, low-authoritarian employees, or those who perform independently of management, prefer a higher degree of control over their working environment (Hakken, 1999, p. 122). They have less tolerance for traditional management hierarchies, and the promotion of intellectual stimulation will be best for some from a facilitator-style of leadership source.

Invention and Leadership

Within the manifestation of the socio-technical division of work itself, there is a volatile distribution of acting functions among humans and the machines they encounter at work. The states of human subsystems and the characteristics of socio-technical relations are changing (Ropohl, 1999). "Every invention is an intervention, an intervention into nature and society. That is the reason why technical development is the equivalent to social change". The rate of change inherent the Cybercentric model can only aggravate problematic interface situations unless statutes of virtual leadership can be implanted that stake a claim to technology assessments, triage, and control.

The maturity of virtually-extended knowledge workers is a dominant issue in the search for leadership (Shectman, 1991). A system called 're-parenting' claimed to yield productivity from young employees. Young knowledge workers in the virtual environment are a constant, ever-present force. The idea of adjusting leadership strategies relative to the maturity or immaturity of followers is part of common strategies (Hersey and Blanchard, 1982). Leadership can be described in the light of two dimensions which can be based on the employee's maturity, which is defined as "the capacity to set high but attainable goals (achievement-motivation), willingness and ability to take responsibility, and education and/or experience of the individual or group".

THE ORGANIC KNOWLEDGE COMMUNITY: THE QUOTIENT OF SUCCESS IN CYBERCENTRIC DYNAMICS

The Cross-Fertilization of Ideas: Four Aspects

Classical theory of post-industrialism, where productivity and growth are given in terms of knowledge generation, and where economic activity shifts from goods production to services rendered, the important occupations are those of the knowledge worker (Bell, 1976). A statement by John Dewey (1916) made more than eight decades ago still holds true: “Society not only continues to exist by transmission, by communication, but it may fairly be said to exist in transmission, in communication.” The ecommercialization of working environments finds its existence 'in transmission, in communication'. The Organic Knowledge Community (OKC) is said to thrive on transmission and communication. Communication is negotiation is argument is opinion is sharing is enlightenment is transformation. The really strong, organic community develops not by suppressing differences to achieve consensus, but rather by acknowledging and resolving them. Successful knowledge cultures must be organic in that they

must foster both the birth, life, and death of ideas in a "knowledge-friendly culture" (Davenport, De Long, Beers, 1998).

Given the causality of the history of the knowledge worker, we can take the teleological position that destiny, or our perception of that destiny, will influence current behavior. The virtual working environment fosters structural relationships that are offered to suggest changing polarity built upon several criteria including passivity versus interactivity, personal involvement and work commitment.

The four aspects of the teleology that are presented below are:

1. the knowledge sharer and knowledge sharing networks
2. collaborative knowledge leadership methodologies
3. collaborative workplace technologies
4. transcendence of a cybercentric virtual-based platform

These dynamics are identified as: independent versus interdependent work patterns; indifferentism versus self-monitorism. Each has a pivotal significance in the way employers and knowledge workers negotiate their relationships.

It can no longer be assumed that today’s knowledge workers have strong personal disciplines, have a precise image of who they are, or command a clear and unabiding image of the role they play in society. Workers are insecure and full of doubts (Donnelly, 1996). They rely on their contemporaries and the mass media for advice but their contemporaries are also looking to the mass media for direction. Indeed, one can identify a collective consciousness of unique professional standing in a company setting that allows certain patterns of interaction and opposes others. In a true organic sense they defend their right to exist. They may be opposed, sometimes overtly, to formal organizational culture.

The cross fertilization of ideas in the vacuum of the corporate ethos can be viewed as organic, overcoming monumental obstacles, long hours and harsh conditions to succeed.

The long-enduring business unit of the global-village dynasty has evolved into the engendering of cross-group relationships in a best-practices exchange environment (Pasternack and Viscio, 1998). The OKC's vital capabilities transfer is the virtual organization's cross-fertilization of ideas that lead to innovation at the highest technical levels.

Avoiding the failure of any OKC is dependent upon several factors that form a value link of enablers applicable to any size virtual or virtually-extended enterprise (Refer Pasternack and Viscio, 1998, p.174, and Davenport, De Long, and Beers, 1998, p. 50). The following is a teleological listing of Cybercentric dynamics, identifying aspects of today's occupational knowledge culture that are a catalyst for the "decouplings of space and place" (Hakken, 1999).

A TELEOLOGY OF CYBERCENTRIC DYNAMICS: FOUR ASPECTS

I. THE KNOWLEDGE SHARER, AND KNOWLEDGE SHARING NETWORKS

Achieving a knowledge-oriented virtual enterprise culture demands from the knowledge manager the supreme ability to transform tacit information into explicit knowledge. The evolution of the knowledge worker's mindset is critical to the new Cybercentric model. Although the rapidity of technological change and its complexity have become truisms, the fundamental challenges confronting knowledge management is how to think in 'systems' terms. It is not so much new technologies as it is how these technologies work as a system. It is not so much the fact that the scale and complexity of the enterprise has increased proportionately with the reduction in marketing response time, new product development and turnaround time, and reduced technology life cycles. It is more that these order-of-magnitude challenges are met with a systems mentality. Included in this systems mentality is the critical issue of knowledge management performance, where knowledge workers do not operate separately, but evolve into knowledge sharers accomplishing their tasks within knowledge sharing system or network.

Dynamic

Progressive Knowledge Sharing, Storage, and Transfer

- **The widest bandwidth** is still face-to-face communication. Multiple channels for knowledge must be created that support one another. The support must be more than technological in origin. Each transfer of created knowledge should add value to the original concept(s). A synergy of knowledge creation knows no greater catalyst than what is known in the industry as the widest bandwidth of them all: face-to-face communication. Up-link, down-link video conferencing is valuable, as is the highly interactive media of Lotus Notes and the Internet.
- **The Self-Monitoring knowledge worker**
- **Trust in the 'knowledging' process** cannot be overvalued in the workplace. The highest value of virtual team interaction is the creation of trust. Regular face-to-face interaction among virtual team participants, be they designers, engineers, scientists, or marketers, establishes reliable structures for knowledge, a professional trust, and a greater resolve to solve difficult issues as they arise in the knowledge creation process.
- **Compliant orientation** may not win out in the virtual workspace.

- **Creating a knowledge culture** that stores and uses reports, documents, presentations, white papers, and research results in a meaningful and interactive way is important. Knowledge creation is only as effective as its affinity for being held in a knowledge sharing architecture. By meaningful is meant cataloging and itemizing knowledge in terms of its authors, themes, associated research or ongoing projects gives 'personification' to the data as opposed to its abstraction. Knowledge is not an inanimate 'it'. Knowledge is a living thing.
- **The Age of Virtual Teamsmanship** must examine the knowledge creation barriers of multilingual, multicultural workers. Technical creativity has diverse sturcturalistic characteristics, challenging the knowledge-sharing process. Technologies have abstractions in nationality, politics, and language representing formidable ethnographic glitches.
- **Competitive intelligence systems and direct marketing software** may be missed as an important knowledge management factor by all except those in marketing, sales, advertising and promotion. To these professionals, the filtering and synthesizing of sales leads, prospect lists, initial inquiries, and on-line customer interface are critical data to marketing strategists, promoters, and salespersons in the field. Digital sales softlogic programs assist primary and secondary lead mining and, although they are no substitute for personal sales, can create a competitive advantage in identifying primary sales prospects.
- **Shared knowledge repositories** can be based on a Cybercentric, 24 hour, world-wide business model that could include analysts' reports, internal and external market research, the activities of competitors. These repositories can be accessed virtually via the Internet, and given classification access priorities. The value of these reports would depend less on relevant, raw information, and more on data that had been synthesized to respond to specific needs and directed to those most able to benefit from shared knowledge upgrades.
- The establishment of a **corporate community-based electronic discussion sites** or chat zones can facilitate a progressive knowledge-sharing environment. The greatest challenge to the concept of knowledge sharing and the knowledge-sharing network is in crating an ability to transform tacit information into explicit knowledge. In larger corporations, the corporate education department will create a virtual library filled with more than just documents. The capturing of 'easy ways of doing things', short cuts, special insights, do's and don'ts, even a section for 'war stories', are part of a thriving knowledge sharing network. The results of broadening and accelerating the effect of knowledge transfer from tacit to explicit is the function of the knowledge sharing network.

II. COLLABORATIVE KNOWLEDGE LEADERSHIP METHODOLOGIES

Transformation of entire working environments in the virtual enterprise may require intense involvement from senior level knowledge managers, but less support required of executives for improving individual performance. Executives provide useful support in the areas of providing funding for projects, supporting knowledge management in the areas of organizational learning, and clarifying and prioritizing knowledge types. It is left to middle managers to exhibit a strong personal capacity for initiating knowledge-sharing networks. The virtual firm's power structure has a significant influence on its ability to successfully manage knowledge.

The interaction of the top three principals of the firm. Knowledge is more closely linked to power in the Cybercentric enterprise, replacing Geocentric rule by prestige, family name, or might-is-right labor groups. CEOs tend to be more vocal within the business community and in the media. Intellectual capital is at least as valuable as financial capital.

Dynamic

The Leadership of Intellectual Capital

- **The Organic Knowledge Community** (OKC) is said to thrive on leadership transmission and communication. Strong, virtually organic working communities develop not by suppressing differences to achieve consensus, but rather by acknowledging and resolving them. The leadership of successful knowledge cultures must be organic in that they must foster both the birth, life, and death of ideas in a knowledge-friendly culture. Strong leadership must be able to set the direction vital for growth and decisively kill those ideas that can no longer serve the enterprise. The long-enduring business unit of the global-village dynasty fostering pet projects that may or may not have benefited the company are gone. Leadership has evolved into the engendering of cross-group relationships in a best-practices exchange environment
- **Technological entrepreneurs** are not born leaders. Computer systems and software change organizations, but they cannot make organizations work by themselves. Today's new chief executive is, in many cases, the creator of the technology the company is built upon. The need for power, and scientific, technological expertise is a rare combination and not often present in technological entrepreneurs. The nature of successful virtual leadership is not charismatic but, more commonly, built upon obtaining the basic tools existing in every knowledge-oriented culture: the development of qualified senior management capable of developing motivational tools, and creating the organizational structure in which employees can work competitively.
- **Technological invention is an intervention**, an intervention into nature and society. Leadership must understand that technical development is the equivalent to social change. The rate of change inherent the Cybercentric model can only aggravate a problematic knowledge worker interface unless

statutes of virtual leadership can be implanted in the virtual enterprise that stake a claim to technology assessments and control.

- **Mediation** on the virtual network works. Leadership, in the strictest sense doesn't. The effective virtual enterprise executive must deal with knowledge management in a proactive way, manipulating knowledge creation opportunities on a smaller scale than ever before, focusing on improving the effectiveness of a single knowledge-oriented function or process at a time. One-on-one collaboration leads to better outcomes than demand-and-consent. Visualizing small project success as a prerequisite to any further growth in managerial effectiveness.

- **Immature, Technologically Mature employees** is a prevalent condition within the working environment. The idea of adjusting strategies relative to the maturity or immaturity of employees (or consultants) is part of an ongoing strategy. The capacity to set high but obtainable goals, the willingness and ability to take responsibility, and personal education and experience must be the evaluation criteria before a sense for leadership can be established.

- **Training programs** are important to the life of a virtual enterprise. Management leaders in the virtually-extended enterprise are confronted with employee groups cautious of ethnic, age, or technological differences and may be unwilling to cooperate. Knowledge workers of foreign backgrounds have different life experiences, values, beliefs, and come from different educational systems. Authoritative management styles may cause the withdrawal and isolation of these knowledge workers into their individual cultural cliques. These fiefdoms, inherent within the fabric of the virtual organization, defy the accepted concept of 'working group' in the workplace, and must be approached differently. Training programs to include appearance, body language, and verbal skills of leadership, with an emphasis on metaphors, analogies, and paralanguage can help leaders motivate diverse participants.
- **Motivation of a virtual workforce** is not evangelical. Leadership of intellectual is instilled in the organization through the act of a 'facilitator'. A leader is a promoter of information and a monitor of its success. Virtual leaders must believe that information and its networking establishes winning relationships. A prevalence of positive knowledge worker traits (Compliant Orientation, and High-Self Monitor personality profiles) cannot be left to chance. Motivational approaches to encourage more effective behavior should be long term and have strong ties with performance evaluation and compensation structures. Knowledge capital is closely linked to capital expenditure and knowledge workers must be compensated less for 'doing' and more for 'thinking'.

- **The mapping of jobs** within organizations has been altered, changing working culture dynamics. Core competencies in the service industry and in manufacturing have precipitated a new demographic of knowledge worker who must possess shrewdness, insight and critical judgement, but not necessarily a cooperative nature. The fundamental challenges of job design, employee integration and management must be viewed in terms of systems integration and 'teamsmanship', not individual technologies or personalities.
- **A group-think mindset** will come from the new knowledge matrix of the virtual workspace. Leadership of group-think mindset means that a full understanding of the nature of mini-hierarchies, teams, and fiefdoms is commonplace. Knowledge management strategies in the virtually-extended enterprise must evaluate worker profiles as being Compliant, Aggressive and/or Detached. Conditioning the knowledge worker toward a more Compliant, group-think mindset, may ward off group tendencies toward isolation or more disruptive working postures.
- **Slow-tech employees** in the virtually-extended enterprise are a common problem, and leadership must contend with the technology 'have-nots' as well as the 'haves'. Computers in the workplace have precipitated fundamental change. The automation of manufacturing activities has eliminated some skills and added others. A polarity between the 'haves' and the 'have-nots', however, from the front office to the factory floor, has become more distinct. Leadership solutions such as on-line chats among tech-smart employees is of no benefit to 'slow-tech' employees. The universal digital economy, where advanced media and the Internet have characterized knowledge creation in terms of a 'postmodernization' shift towards a 'single world' (Robertson, 1993 [DeMooij p. 14/64]) have left many workers behind. A notion of a "world system" of highly integrated nations (Wallerstein, 1976) has yet to become part of a realized sociological view.
- **High-value peer dialogue** means that the 'new script' calls for leadership and management messaging that is efficient and value-filled. Unnecessary meetings are poison. Employee relationships with employers have changed from secure, salaried positions to contractual, part-time and/or consultancy employee agreements, narrowing the scope and impact of virtual knowledge management. When the opportunity to speak is at hand, all steps must be taken to reduce down time residual. Virtual managers have come to place a high value on 'expert dialogue' as an incentive to higher production. The formation of high-value peer dialogue engagements, either by secure means, electronic chat rooms, or face-to-face conversations must be paced in frequency with the intensity and time values of the case at hand.

III. COLLABORATIVE WORKPLACE TECHNOLOGIES

Across the enterprise, spanning the front office to the manufacturing of products, or from the creation of marketing to the provision of goods and services, the knowledge management scenario is enhanced by PC-based communication and

control. PC-based communications architecture will make its affect felt on the industrial automation and services markets in four distinct ways: accelerated life cycles for communication and control technology, new operating platforms, and increased availability of effective, third party software/hardware, and connectivity.

Dynamic

Technical & Organizational Infrastructure

- **Computers, laptops, workstations, palmtops**, and file servers, as well as mini-, supermini-, and supercomputers have enhanced the communications environment. Network computers and network PCs give the virtually-extended enterprise a wider menu of computer-based capabilities with which to support the knowledge worker. Research and development (R&D), marketing, business administrative and planning activities all benefit from this computer-aided environment.
- **PC-based Windows NT** represents the future of networking from the front office to the factory floor. Next generation automation infrastructure for the factory floor shows rapid adoption of PC/NT-based (personal computer/Windows NT) control of leading manufacturers.
- **Microelectronic improvements** in the areas of semiconductors and semiconductor-based products, flash memory, and digital signal processors (DSP), enable technological improvements in new generations of smart products with embedded controls.
- Explosive growth of **Wintel-Based workstations** enable NT/PC operating systems to closely match Unix/RISC machine performance. These and other legacy systems will eventually migrate to nonproprietary, softlogic, PC-based architectures.
- **Off the shelf solutions** to knowledge-linked software products are now available. The embedded and real-time applications market is going mainstream with non-expert users choosing off-the-shelf technology that runs standard operating systems and supports out-of-box requirements.
- **User-friendly software** makes application of computer applications available to non-expert users. Knowledge workers need not be computer experts as they can easily create real-time applications using simplified industry-standard data acquisition hardware and new development software.
- **Mobile knowledge workers** are utilizing laptop computers to communicate with their offices or company headquarters, and keep that communication constant. New telecommunications technologies are proving good investments as they allow the knowledge worker to remain connected to their company's central offices. Laptop computers communicate using the Internet enabling telecommuting. The Web enables video teleconferencing to also reduce commuting requirements.

- **Global positioning systems** (GPS) link other technologies to enhance communications in manufacturing distribution, as well as in the transportation industry.
- **Real time software** in process manufacturing is evolving programmable logic controllers (PLCs) towards PC-based control and making possible real time operating systems (RTOS) that monitor factory floor activities over an 'open' communications system. Software integrates a manufacturer's information and control data interface at all levels of business operations.
- **Virtual simulation software** is advancing product improvement and new product development without committing resources before critical testing has been accomplished. Computer-aided testing (CAT) and computer-aided design and manufacture (CAD/CAM) software enable the knowledge worker to design more intricate products and test them in virtual tooling and manufacturing simulation programs.

IV. ***TRANSCENDING THE CYBERCENTRIC VIRTUAL-BASED PLATFORM***

The Migration from Geocentrism to Cybercentrism Management Models

Dynamic

Managerial Climate

GEOCENTRISM	**CYBERCENTRISM**
Monopoly power with entry barriers	Unique invention with new market venturing
Information hoarding in hierarchical enclaves	Casual knowledge in trans-enterprise nodes
Growth through acquisition and transplanting capabilities	Growth through alliances and unique specialization
Pipeline manufacturing with high inventory costs	Coordination of manuf-acturing & outsourcing
Large number of network levels	Consolidating locations
After-sales service with price with low maintenance	Self-diagnostics prices

National and subnational government regulation of financial activities	Increasingly international & interdependent finance
Organization is geographic, with regions and zones for territorial sales and customer development.	Organization is virtual with sales relationships develop-ing, more over the Internet

Dynamic

Employee Function

Protection of old skill sets closely related new sets education	Unprotected skill sets with diverse
Hierarchical pecking order with competitive 'noise' satisfaction	Instrumental, social, and egocentric
Proprietary status-quo caretaker, with 'indifferentism'	Ecological 'custodialism' mindset

Dynamic

Knowledge Creation Design & Transfer

Knowledge Design Creation	**Knowledge Property Transfer**
Build a clear purpose among knowledge workers and establish a mutual language framework.	Establish a tight business focus closely linked to corporate mission and meaningful values.
Link high performance levels of measured knowledge creation to employee benefits and competitive advantage.	Create a value proposition in terms of customer support and satisfaction, and controlled by time, value of ideas and related costs.
Nourish motivational practices key corporate to team-building and empower	Knowledge is an asset and property, and it is management's

them with executive participation.

Balance worker skills against challenges and against technology. Technology is not nature, but man-made. Knowledge creation is not about tools. It is about how man works and thinks. Systems should be designed around experts, not seen as expert systems.

responsibility to ensure deployment.

Information is the organizing principle behind business, but by definition, it is more than the sum of its parts. The new archetype of ownership is not in the sudden possession of knowledge, but in the synthesis of its continued vitality.

CONCLUSION: VIRTUAL VISION

Viewing the organization of the Davenport, De Long, & Beers (1998) paper as a loosely constructed teleology, this chapter has attempted to follow their basic tenants. Key among the knowledge management projects reviewed by this research were their ten factors identified earlier. What this chapter has attempted to do is enhance these factors through a detailed teleology, giving the reader additional perspectives for strategy development, and direction for further study.

What this teleology is designed to do is build a generic base toward the construction of a Cybercentric business model capable of dealing with the unique dimensions of ecommercialism and its inherent knowledge dynamics. This teleology of cybercentric dynamics reveals an emerging ecosystem that, for knowledge management, means a transcendence of critical business systems, relative competitive advantage, and authoritarian values. Across the entire spectrum of corporations and institutions there exists a uniquely historic moment in which management beliefs can and must change. This will have its inevitable and lasting effect on the majority of business working relationships. The origins of leadership and the elusive motivational ethos at hand in the virtually-extended enterprise must be one that takes full advantage of the Internet, company intranets, extranets, and Ethernets (LANs) and leverages these networks against existing core knowledge applications.

The virtual enterprise will continue to invest considerable value in time and money into implementing knowledge-dependant ecommerce business activities to include fundamental business administration and planning, sales and marketing, human resources, enterprise resource planning, and controlling the manufacturing and supply chain management processes.

Taking the enterprise to the edge of the virtual abyss is a risky and daunting process and, at whatever stage of development a company finds itself, the most powerful tool will be a leadership vision. Knowledge managers must be able to

distinguish the difference between *virtual vision* and being *virtually blind*. Being virtually blind means that companies may be employing Geocentric solutions to Cybercentric problems. Conversely, good virtual vision also suggests that taking the enterprise 'virtual' does not necessitate the termination of existing legacy knowledge implementations. Establishing virtual vision for any enterprise should require that ecommerce solutions leverage their value against existing systems over time, not dismiss them.

Inherent in the teleological dynamics identified in this chapter has been a perceptible shift from nonparticipative to participative governance. The authoritarian way of business life has been woven into every business system and subsystem. Old working relationships and assumptions are slow to change. Even as the technological wave washes over all we know of governance, the authoritarian method, or management's prerogative to plan, organize, control, and motivate remains (McLagan & Nel, 1997). Pervasive Geocentristic management structures exist and, as a force, can overwhelm anything new digital or otherwise. But ultimately, the acquisition of virtual vision means that one recognizes the most important aspect of business today is not to just to digitize knowledge, but to make digital knowledge available to the forces of creation inherent in the company. For that to happen, the leadership of intellectual capital cannot cling to the status quo.

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About the Author:

Lansing A. Gordon is a Senior Analyst with the global marketing, consulting and teaching firm Frost & Sullivan at its Silicon Valley headquarters in San Jose, California. He has authored technical research documents in various areas of industrial automation and marketing with the Company. His focus is in industrial controls, with recent, world research studies covering PC-based Controls, Computer Numerical Controls (CNCs), the Industrial Ethernet, Internet on the Factory Floor, as well as Robotics Software. Mr. Gordon's first book was published in the area of Internet Marketing.

Lansing Gordon was educated at Boston University, Harvard University, receiving his Bachelor of Science and MBA degrees from Western International University. Gordon is a doctoral candidate with the Graduate School of Management, University of Western Sydney, Nepean, Australia.

Dr. Jerry Kemp is considered by many to be the father of Instructional Design. He has broadcast his message to educators, administrators and politicians throughout his career with significant results. Today, as we develop curriculum materials for interactive multimedia and distance learning, instructional design is our initial concern. It provides a blueprint to ensure effective integration of curriculum and technology to facilitate teaching and learning.

INSTRUCTIONAL DESIGN FOR DISTANCE EDUCATION

by Jerrold E. Kemp, Ed.D.

Distance education continues to expand educational opportunities for students with flexible, highly interactive formats to serve a diverse population of learners at many locations. Availability of two-way audio/video, computer networks, and the World Wide Web enables integration of technologies to provide powerful tools for teaching and learning. A systematic approach to instructional planning is required to provide quality education for a diversity of learners and learning environments.

Initially we base our decisions and actions on past knowledge and experiences with the assumption that something new should fit within established and accepted patterns. Is it not true that most people still think of education as conducted by a teacher standing at the front of a classroom, frequently talking and using a blackboard? They see students, seated in rows listening, and when directed, answering questions or reading from a textbook and completing workbook assignments. This approach to education is now changing.

As teaching moves into distance learning, teachers recognize that the planning requires attention to concerns that are often ignored or not treated as important in conventional classroom teaching. These include:

- Motivate expectations of students before instruction starts and offer support to them before, during, and after instruction takes place.
- Overcome the impersonal nature of distance learning and the lack of direct human support students encounter by ensuring that adequate communication takes place between individual students and the instructor, and among groups of students.
- Help students self-discipline themselves to manage study time and fulfill responsibilities for participation, completing assignments, engaging in projects, making contacts with other students through interactive media, and so forth.

- Decide how to determine that students exhibit positive behaviors of being actively involved in acquiring knowledge and practicing new skills.
- Determine how students can interact with each other at different locations between class sessions.
- Accommodate students who miss a session, or otherwise are unable to follow a preset schedule.
- Coordinate activities and responsibilities with local teachers, parents, facilitators, and assistants, including those who operate local receiving equipment.
- Integrate and control the use of diverse media by teachers and students.
- Recognize the potential for technical problems at both the instructor's facility and at student site locations and how to be prepared to overcome them or substitute with other media or activities.

Because of these and other requirements, it should be recognized that many interrelated factors must receive specific attention when planning a distance-learning program. Neglecting or improperly treating any of them can lead to confusion and even unsatisfactory results. Therefore, a comprehensive, systematic process is necessary for designing a distance education program.

A PERSPECTIVE for EDUCATIONAL PLANNING

Ask yourself: "What are your beliefs and practices that reflect your approach to education as required in today's society?" Some years ago a colleague, Dr. Ron McBeath,developed a model that helps us to examine and categorize our own beliefs and actions within the educational process. This perspective can be most helpful as a new instructional technique like distance education becomes widely applied.

McBeath identified three patterns of educational change and transformation that can be related to the shifts in society from the Agricultural period through the Industrial era, and now into the Information age. These patterns reflect the principles, practices, and outcomes of the educational process for each stage as shown in Figure 1 on the following page. (Please review it before proceeding.)

Which Stage needs primary consideration in distance learning? Essentially your reply should be "*Stage 3*" as it fits most educational needs of our students today who are living, will be working, and raising families in this Information age. As McBeath states in an early article:

> *The move in education today is away from autocratic and laissez-faire toward democratic control; from doing things **to** and **for** students to doing things **with** them. Through this shift in control, responsible freedom for students is more attainable. It is significant that this move toward practices of readiness, involvement, and inquiry are most likely to produce outcomes such as response*

mastery, adventure, and self-actualization. These are all important for educating students in today's rapidly changing society.

Figure 1

A Model Depicting Educational Change as Sequential and Transformational

V. ***Stage 1***	**Stage 2**	**Stage 3**
	Principles	
autocratic	laissez-faire	democratic
passive mind	independent mind	interactive mind
linear thinking	open-ended attitude	pluralistic approach
	Practices	
teacher dominated	permissive	inquiry centered
do things to	do things for	do things with
subject emphasis	method emphasis	interdisciplinary
product oriented	process oriented	performance oriented
extrinsic manipulation	random reinforcement	meaningful involvement
standards grouping	age grouping	Readiness
	grouping	
class teaching	group teaching	independent study
fixed stimulus	multiple stimuli	organized stimuli
limited access	random access	systematic access
limited resources	multiple resources	instructional systems
teaching aids	audiovisual techniques	instructional technology
	Outcomes	
fixed response	varied response	response mastery
convergent thinking and rote memory	convergent thinking plus free expression	convergent thinking and divergent thinking
competitive	cooperative	adventure and creativity
inner directed	group directed	self actualizing
dependent	independent	interdependent

(Adapted from R.J. McBeath, "Is Education Becoming?" *AudioVisual Communication Review* (Spring 1969, pp. 36-40).

You may still feel comfortable with some elements in Stages 1 and 2, but realization and practice should gradually move to encompass all the components under the Stage 3 principles, practices, and outcomes. Taking into account the requirements of the Stage 3 factors and the specific complexity of the distance

learning process, an orderly, systematic design of instruction should be used. This can offer a practical way to guide you for deciding on and accomplishing the goals of a program that potentially lead to positive attitudes about learning by all participants, comprehensive high levels of student learning, and program success for teachers and support personnel.

VI. A DESIGN PLAN

The following operational questions, within five major phases of a systematic plan, should be answered as your planning proceeds. (Following each question, as appropriate, brief explanations or examples are included.)

Analysis Phase

1. A distance education program being developed should overcome what *educational problems* or serve what *student learning needs?*
2. What is the *purpose* or *goal* for the program?
3. What *priorities* and *constraints* for the program need recognition as the planning starts? (time frame for implementation, monetary and other resources, relationship to other participant activities, other logistics)

Developmental Phase

4. What *basic skill areas*, *curricula topics*, *interdisciplinary themes*, and *problem-based projects* should comprise the instructional program?
5. What *subject content* supports each skill, topic, theme, and project? (facts, concepts, principles, procedures, beliefs and values)
6. In terms of subject content, what *learning objectives* should students attain for each topic or theme? (areas of knowledge, skills, and attitudes, written so each one contains a *verb* that describe what learning is to take place and the *content* to be treated; and optional parts consisting of a *performance standard* that indicates the minimum acceptable accomplish in measurable terms and any special *conditions* under which the learning would take place. This component of planning should relate to the *standards* that are part of the concern for meeting accountability in education today.

   An example of a learning objective might be: *Using a world map* (**condition**), *locate* (**verb**) five contact areas (**content**) *in which the Cold War took place* with an *accuracy of 90%* (**standard**). (Note: Students should receive a list of required objectives prior to the start of instruction for the topic or theme.)

7. What is the level of each student's preparation for studying a topic as determined by *pretesting*? (required prerequisite knowledge and skills; level of present competency with topic and theme objectives to be taught) Based on pretest results, some students may require review or remedial instruction in prerequisites. Others may be able to skip some instructional content as they already have acquired the knowledge or skill. Careful planning and

direction of individual students may be required because of such shortcomings or advanced ability.

8. What *instructional methods* and *learning activities* can be used to accomplish the objectives? (teacher presentation with student participation, self-directed student learning, student-to-teacher or student–to-student interactions) Recognize that frequently more than one method should be used to accomplish topic objectives so as to serve the various learning styles of students.
9. What *communications technologies* and *instructional resources* are available and most suitable to carry out instructional and learning activities? (broadcast system, video system, and/or data communications system including connection to the Internet; media forms include print, audio, still/motion projected, electronic forms in many categories, and multimedia types) Evaluate those available, recognizing advantages and limitations; make selections for use in conjunction with the instructional methods and activities specified in #8 above.
10. What *logistical support* is required to initiate and maintain the instruction and learning? (budget, facilities, equipment, materials, personnel services, schedules)
11. How can *attainment of learning objectives* (evaluation of learning) by students be determined? (student self-testing, teacher's written test forms, reports, project results, and student portfolios; latter types judged with rating scales)

Implementation Phase

12. Do the results of a *program tryout* indicate need for any changes or improvements to meet expectations? (test run with sample of student population to determine how well learning objectives are being accomplished, within the time schedule and use of resources, along with reactions and suggestions from program participants, leading to necessary revisions before full implementation)
13. What other matters may need consideration when *implementing and managing* the program? (orient and train support personnel to build skill and confidence in their participation; orient and guide student participants; using databases and other methods for record-keeping including schedules, student progress, budget and expense categories, inventories of materials for use, and so forth; keep involved and interested persons informed and updated on results and progress; maintain teacher competencies on advances in technologies and new practices for distance education)

Program Evaluation and Revision Phase

14. After initial use, does the program meet *an acceptable level of learning competency* and *other positive behaviors* for following groups of students; if not, what *revisions* should be made? (Consider the questions: What reactions are received from students, parents, teachers, and program support

personnel? Which program components have satisfied the goal originally set? Which program components need attention for improvement or revision?)

15. Does the program operate in a *cost-effective* and *efficient* manner? (Consider these questions: To what degree do students achieve competency with the learning objectives? What student gains are there between pre- and post-testing? {**effectiveness**} How well does the program use personnel, teachers, facilitators or coordinators, time, facilities, and funds? {**efficiency** leading to **cost effectiveness**})

    Use a survey and a few open-ended questions to obtain reactions, attitudes, and concerns about the program from students. The results of these evaluations may require modifications for the next time the program is offered.

16. With success, are there *extensions of the program* to consider? (serve new groups of students, initiate a next level course, or expand to additional courses and instructors)

While the above questions are stated in terms of a program being newly developed, the questions and follow up comments can also serve as review and evaluation for a presently operating program.

As educators read the above questions, they may feel confident that they are knowledgeable about many of these topics, often having studied them during teacher education and then applying them in teaching. Also, administrators and teachers who are involved in distance education may believe they already use the components of systematic planning introduced here. These opinions may be true. If so, for such persons the information here can be a reinforcement, review, and extension of what they now do. But experience has shown that in many situations these beliefs and practices are rarely substantiated. Few of these components in systematic planning receive the detailed attention and careful applications that are necessary in comprehensive distance learning programs.

VII. SUGGESTIONS FOR MANAGING THIS PLANNING PROCESS

While the 16 above questions can lead to the successful design of a distance education program, they do not have to be applied in a linear order as separate steps within a procedure. You will recognize that each element can affect the development of other ones. Insights gained in later planning stages often lead to revisions of earlier ones. Therefore as you proceed, you will find that changes, deletions, reordering items, and additions may be necessary. For example: Following the development of learning objectives for a topic, you might next decide on testing methods so there is a tight relationship between objectives (component 6) and evaluation (component 11). Maintaining an open mind, with some creative thoughts, and being flexible are essential throughout the planning process.

Here are some additional suggestions that can help when designing, implementing, and managing a distance education program:

- Keep in mind the Stage 3 principles, practices, and outcomes of the McBeath model of transformational change as a framework for the structure of the program and its evaluation.
- Someone who understands and is experienced in applying a systematic planning process may be beneficial as a consultant since this method goes beyond conventional curriculum planning, especially within the new concept of distance education. This person, often called an *instructional designer*, much have a background in instructional systems design (ISD); knowledge of educational philosophy, learning psychology, the communications process, instructional and evaluation methodologies; and experience with both conventional and new instructional technologies.
- Recognize the need to manage the "politics" associated with introducing a new program into an organization. This would include:
  - ✓ Encourage and support teachers and students to engage in non-conventional activities,
  - ✓ Obtain permission or copyright clearance for use of special materials,
  - ✓ Be alert to human conflicts; support necessary staff requests or actions, and
  - ✓ Keep all necessary persons informed as the project proceeds.
- Try not to get bogged down with minor details that could become a discouragement, leading to superficial or hasty decisions or unnecessary changes in the instructional program.
- When things go wrong, examine what happened and revise accordingly. Learn from both successes and failures.
- Set checkpoints for the planning team to sit back and respond to these formative evaluation questions:
  - ✓ What reactions are we getting from students, parents, and other program participants?
  - ✓ Which program components are doing well?
  - ✓ Which program components need special attention and changes?
- Build and maintain trust, a sharing attitude, continuing support, and accountability among all participants.

While there is more information and many more suggestions to offer, space does not permit more treatment of this subject on the systematic design of distance education programs. If you find merit in the approach to instructional planning outlined above, more in-depth treatment of each topic can be found in the author's new book –***An Interactive Guidebook for Designing Education in the 21st Century,*** Agency for Instructional Technology (AIT) Box A, Bloomington, IN 47402-0120, email: info@technos.net; phone: 800 457-4509.

Finally, let us stand back and consider the personal feelings and needs of individual teachers, and others, who become involved such a new program as distance education. Be aware that for some individuals the initial enthusiasm for a new endeavor can weaken and fade in time. The excitement of creation and mental challenge could subside and for some teachers the program may appear to become too routine and repetitive. Also, there may be new, more attractive events that could shift a person's interests. But even in view of this possible eventuality for some individuals, recognize that attention to *three stages of personal involvement* by teachers in innovative activities can best ensure success and their continued positive involvement.

- **Readiness** – Identify those persons who are dissatisfied with the present beliefs, practices, and outcomes of education, and in particular their own programs, and want to do things differently to provide students with new educational opportunities while improving their learning and attitudes.
- **Support** – Initiate and continue to guide, assist, and provide necessary resources or otherwise support the efforts of those "ready" to change in a systematic manner.
- **Success** – Results can be personal satisfaction for accomplishments with reinforcement from students, parents, and colleagues. This is a motivation to continue and extend the transformational efforts toward further success.

Evaluation of Fall 1999 Online Courses

Andreea M. Serban, Ed. D.

VIII. Executive Summary

The purpose of this study was to explore the demographic and academic traits of Fall 1999 online students, to compare them with those of Santa Barbara City College and peer traditional students (students enrolled on campus in ACCT 230, for example, as opposed to students enrolled in ACCT 230 online) and to investigate the opinions of online students regarding their online course delivery experience. The study combined data from SBCC's student data system with students' responses to a questionnaire. The questionnaire was first mailed on October 20, 1999. A follow up was mailed on November 17, 1999. The response rate was 50.6% and the respondents were representative of the online student population.

The development and implementation of online course delivery is a challenging task for any institution. Santa Barbara City College has evolved considerably in only five semesters in the breath, quality and quantity of online course offerings. Student satisfaction with all aspects of online course delivery is very high and, as summarized below, most of them expressed interest in repeating the online format.

This study represents a first comprehensive attempt to evaluate online course delivery at SBCC and reflects data for one semester. In order to better understand and track the progress of online courses, further studies are needed that will compare data from multiple semesters. The findings of this study should be viewed as formative evaluation meant to inform the College community and facilitate improvement rather than summative conclusions leading to final decisions about the effectiveness of online course delivery. It is our intention to continue these studies and to incorporate a comparative approach of multiple semesters.

Course Offerings and Enrollment

From two online courses offered in Fall 1998, the College has expanded its online courses offerings to 28 different courses in Fall 1999 and 46 in Spring 2000. Of the Fall 1999 online courses, 17 were totally online (no on campus attendance required), 7 were hybrid (most instruction is online and some on campus attendance is required) and 4 were partially online (most instruction is on campus with an online instructional component). The growth in online course enrollment has also been very rapid, demonstrating that the College is responding to the needs and preferences of students and attracting students who would not have otherwise enrolled at the College. A total of 655 students enrolled in at least one online class in Spring 1999, 1,176 in Fall 1999, and 1,366 in

Spring 2000 (as of March 23, 2000. It is estimated that the total number of students enrolled in online classes in Spring 2000 will reach 1,500).

10% of the Fall 1999 online students took an online course in prior semesters and 11% repeated the online experience in Spring 2000. 447 (38%) of the Fall 1999 online students enrolled only in online classes. These students would not have enrolled at the College if online delivery were not available. The unduplicated online enrollment as of the Fall 1999 census day of classes represented 7% of the total unduplicated headcount. This percentage suggests that online enrollment has already became an important part of the overall college enrollment.

Student Demographic Characteristics

The Fall 1999 online students have a slightly higher percentage of female students - 56% - compared to 50% for SBCC and 51% for peer on-campus courses. Overall, online students are comparable in terms of age to the college average and slightly older than students in peer on-campus courses. The ethnic distribution of online students closely mirrors that of SBCC and peer courses. This is an important finding of the study as the College strives to represent the ethnic and gender make up of the community, in general. The nature of course offerings in Fall 1999 skews the ethnic distribution by type of online class. The partially online classes have a higher representation of Hispanic students than the other online courses because these courses generally attract more minorities. Examples include English as a Second Language and Chicano Studies. The three demographic characteristics combined indicate an emerging pattern. Hybrid courses tend to consist of white females of an average age of 31. Totally online classes are still dominated by white females, younger, but there is a better gender balance than in hybrid courses. Partial courses are dominated by younger male students and, as explained earlier, there are more minority students than in the other types of online classes.

Student Success

The area of student success reveals both areas where the online course delivery has made progress as well as some areas that need improvement. Overall, the course attrition is higher for online courses than for SBCC, in general, and for peer on-campus courses, in particular. Hybrid courses exhibit the highest course attrition rate by the census day of the courses. 47% of hybrid course students dropped their courses by the census day. However, the number of hybrid courses is significantly lower than that of totally online classes. Totally online courses, which represent the majority of online offerings, have a low attrition rate by census: 18% compared to 24% for the college and 23% for peer courses. The attrition after the census day of the courses is very similar for the three types of online courses: 23% for hybrid courses and 24% for totally online and partial courses. These rates are higher than the SBCC rate of 16% and the peer course

rate of 15%. It is important to note that SBCC's attrition rates are lower than those experienced by other colleges offering online instruction. One factor that contributed to the higher after census attrition in Fall 1999 online courses compared to SBCC and peer courses is the phenomenon of "hidden" withdrawals. All courses have a deadline for dropping the class without a "W" being assigned to the permanent record of the student. In traditional on campus classes, faculty can easily identify and record "no show ups" – students who registered for the class but did not attend the first class sessions – and students who withdrew before the census day of the class. In online classes, however, students who are not aware of the drop deadline or who do not make their intention known to the instructor, can easily "hide" without the instructor being aware of their intention by the census day of the course. This explains the shift in withdrawals for totally online classes from before the census day of the course to after the census.

Trying to predict the probability that a student will withdraw from an online course has not been revealing. The various variables available in the student data system used in a logistic regression explained only 18% of the decision to drop an online course. Clearly, more research is needed to pinpoint more closely the reasons for student withdrawal, assuming that there are other, academically related reasons besides the personal ones.

In Fall 1999, 52% of online students received a passing grade (A, B, C, D or CR), compared to 73% of students in peer courses and 71% of SBCC students. According to a recent article in the Chronicle of Higher Education, this situation is common for many colleges offering online courses. Hybrid courses are an exception, with higher percentages of both successful and passing grades than the other two types, when Ws are included in calculation. The gap between online courses, the college and peer courses becomes smaller when the grade distribution is calculated only for those who persisted through the end of their courses (excluding Ws). Without Ws, online classes, generally, are still behind the college and peer course averages, but the improvement is visible. Again, this indicates that if the "hidden" withdrawal phenomenon is resolved, the grade distributions in online courses will more closely mirror those of traditional courses. Hybrid courses are the closest to the college and peer course averages if Ws are not included. This suggests that those who persist in this type of classes do better grade-wise than their counterparts in totally online and partial courses. This seems a normal consequence given that students in hybrid classes have higher GPAs than students in the other two types and have completed, on average, a larger number of units at SBCC. This indicates that these students have had better academic success at SBCC and have formed a discipline of study through their prior courses.

Student Satisfaction

The student opinion and satisfaction survey reveals that online course delivery is highly responsive to the students' needs and preferences. Students praise the

flexibility of the format, the quality of offerings, and the feedback from instructors. 68% of the respondents indicated that they like online courses equally or better than on campus classes. 73% of respondents indicated that they would take another online class and 21% were inclined but not positive that they would repeat the online format. 80% of respondents felt that the feedback they received from their instructors was very helpful and 45% indicated that the online interaction with other students is beneficial to their learning. 56% of the respondents took the courses to meet general education or major requirements.

Students were not exactly sure of the difference between online and traditional courses regarding the improved mastery of course content due to the online format. 31% of the respondents indicated that they understand ideas and concepts better than they would in a more traditional class and 39% of respondents said they are better able to visualize the ideas and concepts presented than they would in a more traditional format.

The majority of students do not feel that they had technical difficulties in accessing their online course materials. 77% of respondents felt they did not spend much time trying to access the course site on the Web and 85% thought that they have the necessary computer skills.

From the students' responses, it is evident that online courses achieve one of their major purposes, which is to provide the flexibility that many students need to engage in college education. 88% of the students indicated that they are better able to juggle their coursework with their other work and personal responsibilities than they would in a traditional format. 36% of the respondents indicated that they would not have taken the course if it were not available online and 55% would have taken it on campus only if it were offered at a convenient time. Their presence in the online class indicates that this format provided the time convenience students needed. 62% of the respondents worked at least 21 hours per week, with 46% working more than 30 hours per week.

Although 73% of the students indicated that they would characterize their online classes as at least equally demanding compared to on-campus courses, their grade expectations exceed the real outcome. 91% of the respondents thought they would receive a passing grade. This suggests that students believe online courses would be easier to pass then traditional classes. Students do not seem to engage enough in the general online orientation before beginning their courses. Of all online students who responded to the survey, 34% did not take the general online orientation and 40% of totally online students did not either. However, since each of the online courses offers its own online orientation, it is likely that students participate in the course specific orientation rather than the general one.

About the Author:

Dr. Andreea M. Serban is the Director of Institutional Assessment, Research and Planning at Santa Barbara City College. She has a Doctorate in Education and a

Master of Science in Higher Education Administration from State University of New York at Albany and a Bachelor of Science in mathematics from University of Bucharest. She is a published author and associate editor of: Planning for Higher Education, the journal of Society for College and University Planning and The Professional File, a publication of the Association for Institutional Research. Policy analysis, higher education planning and finance, and applications of computer technologies complement her expertise in research and evaluation.

"PAY-PER-USE" SOCIETY ONE STEP CLOSER

Congressman Rick Boucher

I regret the decision of the Librarian of Congress, acting upon the recommendation of the Register of Copyrights, to reject the recommendations of the Administration, concerned Members of Congress, universities and libraries in announcing a decision that does not protect traditional fair use rights. This disappointing decision has moved our Nation one step closer to a "pay-per-use" society that threatens to advance the narrow interests of copyright owners over the broader public interest of information consumers.

In crafting section 1201(a)(1) of the Digital Millennium Copyright Act, Congress sought to preserve the principle of "fair use" that has served our Nation so well for more than a century. Unfortunately, based on the advice of the Register of Copyrights, the Librarian of Congress today announced his decision to limit the ability of ordinary consumers in most cases to circumvent electronic security measures for the purpose of exercising their non-infringing fair use rights. Consequently, any person who circumvents a technological protection measure to gain access to information to which he has a fair use right will be guilty of a crime.

I was heartened recently when the National Telecommunications and Information Administration in the U.S. Department of Commerce, speaking for the Administration, so forcefully articulated the importance of preserving fair use principles in the 21st century. NTIA made useful recommendations to the Register of Copyrights for implementing section 1201(a)(1) in a manner which would have protected fair use rights. For a moment, it appeared that the rulemaking might advance the interests of information consumers. Those hopes have now been dashed.

As NTIA recognized in its letter, one of the foremost concerns reflected in the Congressional report upon passage of the DMCA was that changes in the law could chill the exercise of consumers' traditional "fair use" rights, and move us all toward a "pay-per-use" society. Congress recognized that some limits had to be placed on the anti-circumvention provisions of the DMCA to ensure that librarians, educators, the scientific community, and other information consumers could continue to gain legitimate access to a variety of works likely to be protected through the use of technological measures. Section 1201(a)(1) was, therefore, included to exempt from the prohibition on circumvention "persons who are users of a copyrighted work which is in a particular class of works, if such persons are, or are likely to be . . . adversely affected by virtue of such prohibition in their ability to make non-infringing uses of that particular class of works ..." The Librarian was charged by the statute with defining the classes of works likely to be at risk.

Under this grant of authority, it should have been possible to exempt, for example, copies of works purchased by universities and libraries when their students or patrons subsequently seek to make non-infringing fair use of those works. Unfortunately, the announced exceptions to the rule are so narrow as to be practically meaningless. Fair use is not protected.

There is little doubt that the 107th Congress will consider proposed revisions to the DMCA. Given the importance of fair use to society as a whole, my hope is that Congress will re-calibrate the DMCA to balance more evenly the interests of copyright owners and information consumers. With today's failure of the Library of Congress to protect the public's fair use rights, Congress in its next session should act to prevent the creation of a "pay per use" society, in which what is available today on the library shelf for free is available in the future only upon payment of a fee for each use.

Press Release Statement of Congressman Rick Boucher, 2329 Rayburn House Office Building, Washington D.C. 20515, December 4, 2000

A PERSISTING DIGITAL DIVIDE PUTS MILLIONS OF AMERICANS AT AN ECONOMIC, SOCIAL AND POLITICAL DISADVANTAGE

Consumer Union

Focus policy on people through education and resources to acquire computer technology, not corporate tax breaks - Consumer Groups Conclude

(Washington, D.C. - October 11, 2000) - While computer ownership and Internet use continue to grow, the "digital divide" that separates those Americans connected to the Internet from those who are not persists and is not likely to disappear any time soon, according to a report released today by the Consumer Federation of America and Consumers Union. The gap puts millions of Americans at a disadvantage in our increasingly "online" society. The more important the Internet becomes, the more serious the problem will be, unless steps are taken to close the gap.

"By presenting the first direct comparison of a broad range of commercial, informational, educational, civic and political activities of individuals in physical space to those in cyberspace, we have demonstrated a troubling, new source of inequality in our society," Dr. Mark Cooper, CFA's Director of Research and principle author of the report, said.

The report, entitled ***Disconnected, Disadvantaged and Disenfranchised***, is based on a detailed national survey of 1900 respondents and finds that 47% of the respondents do not have access to the Internet at home. The "disconnected" are much more likely to be lower income, older and minority households.

"Once policymakers understand that these vulnerable groups are harmed by their lack of access to technology, they should begin to seek cost effective avenues to address this deprivation," said Gene Kimmelman, Co-Director of CU's Washington Office. "People of every age, income and race are concerned that technological advances are widening the gap between rich and poor and fear that the information revolution will leave many behind."

The report pinpoints the steps to be taken to overcome the digital divide by exploring attitudes toward and experience with information-age technologies. The digital divide is not the result of a failure of those without access to appreciate the importance of technology, the report finds. Approximately 93% of those without access believe that computer skills are vital, 83% believe that understanding technology is critical to success, and 84% believe that children learn more when they have access to technology.

At the same time, those without access have much less confidence in their ability to use these technologies. Only 21% of the "disconnected" consider themselves computer savvy (compared to 57% of the "fully connected"). Half say they do not know what the Internet is or how it could help them, compared to one-eighth of

the "fully connected." Two-thirds of the disconnected say the Internet is too expensive.

"The Internet is already an important avenue for participation in society." Cooper said. "As it becomes the main avenue of commerce and communications, people not connected to the Internet could become a new category of the disenfranchised. Public policy to close the digital divide must give people the skills to use technology, the experience to make them comfortable with it, and the resources to bring it into their homes, where they conduct their personal business."

"Bills currently before Congress, like S. 2698 (The Broadband Internet Access Act of 2000), which aim to bridge the digital divide by giving tax breaks to corporations for building infrastructure are misguided," Kimmelman concluded. "We should direct tax dollars or subsidies to the people who cannot afford technology, not to corporations."

The full report is available at:

http://www.consumerfed.org/digitaldivide/disconnected102000.pdf. (2100 kb)

Note:

Consumers Union is a nonprofit membership organization chartered in 1936 under the laws of the State of New York to provide consumers with information, education and counsel about goods, services, health, and personal finance; and to initiate and cooperate with individual and group efforts to maintain and enhance the quality of life for consumers. Consumers Union's income is solely derived from the sale of Consumer Reports, its other publications and from noncommercial contributions, grants and fees. In addition to reports on Consumers Union's own product testing, Consumer Reports, with approximately 4.5 million paid circulation, regularly carries articles on health, product safety, marketplace economics and legislative, judicial and regulatory actions that affect consumer welfare. Consumers Union's publications carry no advertising and receive no commercial support. (Web: http://www.consumersunion.org/)

The Consumer Federation of America is the nation's largest consumer advocacy group, composed of over two hundred and forty state and local affiliates representing consumer, senior, citizen, low-income, labor, farm, public power and cooperative organizations, with more than fifty million individual members. (Web: http://www.consumerfed.org/)

The Writings of Guy Bensusan

Many of us have followed the writings of Dr. Guy Bensusan for a long time. Others are just discovering him. He is a frequent contributor to the DEOS listserv, and freely shares his rich experience and philosophy. Over the years, Ed Journal has published a number of his articles. He has given his kind permission to publish these each month starting with his writings of about five years ago.

His philosophy and practice have continued to grow with the advent of new technology and the acceptance of distance learning as a viable and effective alternative to traditional methods of teaching. He is the master teacher, leading us into new paradigms of teaching and learning. Through these writings he will take us on a journey of exploration and discussion. He will show us how to motivate students and achieve results with anywhere-anytime collaborative learning that are the envy of most classroom teachers.

The *Bensusan Method* is enriching the lives of tens of thousands of students. Ed Journal is grateful to have Dr. Bensusan present this series of articles each month so that you, your colleagues, and your students can enjoy and benefit from his experience.

Chapter C-1

Utilize Portfolios for Student Accumulation of Growth Evidence

by Guy Bensusan

"What do you mean by a portfolio, Dr. Guy?"

The question comes up on the first day of every term. Portfolios have been a coursework mechanism for decades, though the extensive attention they have received in recent learning literature may give an impression they are new.

My response to the student's question is, "Your portfolio will be whatever you choose as a single transportable container in which you keep everything you do for this course. It can be a notebook, a box, a briefcase, even a suitcase, and it will be most useful if you set it up with many sections or files corresponding to the assignments and other activities in which you engage this semester."

I continue by saying, "Each of you will and should do it your own way, because this is your learning experience with the subject matter, and while I may be the teacher, I am here as a helper, guide and fellow-learner to each of you. With the portfolio, I would encourage you to set it up in at least three main sections, which fit the ten assignments consisting of three assessments, six essays and one project mentioned in the syllabus. Others will decide to have additional files which might be called, Work in Progress, New Ideas, Notes on Group Work, Visits to Museums, Interviews with Resource People, Pictures and Photos, Rewrites of Essays, Illustrations for Project, E-mail Correspondence, or even a catch-all called Other."

The point is that their portfolio is where they should keep everything relating to their course learning. They will be going back into it to see where they have been and what they said earlier, keep adding to the information, revising what they have previously written, keep track of how they are perceiving their new ideas and layers of comprehension. They may show it to me at any time, if they want my comments on something, but I will not grade it until it is turned in at the end of the course. Some are bothered by this and ask, "How will I know how I am doing or even if I will pass?"

I reply that it is impossible to fail if one keeps up with assignments, because the act of writing the essays, assessing the changes in one's thinking and perception, and developing the project as a demonstration of the ability to apply course principles usually earns an A. The system is designed to be self-directing, self-pacing and self-administering; the student may move along as fast as he or she wants, and then has the remainder of the semester to update, improve and refine the entire portfolio, and even establish evaluation criteria and formulate the grade that should be awarded.

I strongly favor the work ethic that stresses improvement. I try to eliminate the concept of "final," saying that even after I had been awarded my PhD, I still continued to make changes, additions and revised interpretations in my dissertation. One emphasis then, is that learning continues, and one's improvement needs to be measured (if it needs measuring at all) by the distance the learner travels between entrance and exit. We look for growth in quality, ability to perceive and function at many levels, plus depth and quantity, along with revisits, rewrites, and revising of thinking.

The opportunity to go back and revise is important because it offers the chance to build towards what is ahead. Since all students do not work in the same manner, at the same pace, with the same skills, or in the same order of things, treating the portfolio as an individual demonstration of growth is far more effective than setting up due dates to receive essays and then grade as a separate unit. This latter approach focuses on numbers for grading and separates the essays, which really should function as a stairway.

I want the student's work to build over time, to come together, to move toward a vision of the whole topic; I want the students at the end of the course to see the bigger picture, and to be able to transfer the ideas and methods to the study of other subjects. I want the portfolio accessible for review and additions, available for use in group work, and psychologically symbolic of learning itself --- that is, the ongoing process that emanates from within, the always unequal stages of growth, stasis, frustration and occasional retrogression.

The portfolio should be part of the student's learning, always a reminder that the most immediate source of understanding lies within the self, from understanding the self as well as the learning models and escalator. Finally, I want the student to keep the portfolio long after the course is over, and continue to build on it. It is amazing how much fine post-course development can be built on a solid foundation established during the course itself. To modify an old aphorism, "later books from earlier portfolios grow!" The emphasis is lifelong learning.

Continuity and connection are important in the portfolio. If we think about the three assessments, it becomes clear. On the first day, we will have a learning activity in class that will consist of a video or a musical excerpt or a painting that is appropriate to the course. We will examine it for some time, talk about it, and then I will ask the students to write about it. Many will ask what they should write; the answer is, whatever you think and see at this time; write two or three pages, as much as possible. This becomes the benchmark for the growth --- what is written becomes important for later comparisons. I usually have to remind them, however, that what we are doing is not a test, but an initial set of observations.

Some students will write half a page and try to turn it in to me; I hand it back and ask that they try to comment as extensively as possible, and put it in the portfolio. A few students bring their assessments to my office and want me to read them, "to see if they are okay" (how well they have been conditioned!). I spend a lot of time explaining the ideas behind what we are doing, and they seem to

understand on trust, even if they tell me they cannot see at the start how it will all work.

On the other hand, most students will write two or three pages on their initial observations. I often use what they have done as the basis for entry into class discussion. There always seems to be at least one student who will speak out at first, usually with some very definite opinions and judgments about what they have seen or heard. That will evoke parallel and opposite comments, leading me to bring out The Ladder and say, "These are some solid observations. Where do you think they fit on our Ladder?"

Let me use an example from the Southwest Arts and Culture course. One of the paintings I may use on the first day is the "Oregon Trail," signed by Oscar Berninghaus, 1951. It shows a vast expanse of clouds and sky above a plain with grass, and some cacti in the foreground. On either side in the middle background are flat mesas, and a long "s-curve" of twenty-plus Conestoga wagons, pulled by horses, and carrying men and women, moves towards us from the far background. Riders accompany the wagons; men walk next to the horses, urging and prodding, while a Dalmatian dog trots along next to the front rider.

Having shown this painting to the students on the first day of class, I had asked them to look at it for a while and then write about it. A week or two later, I will show it again and ask for their commentary, and someone will always talk about the Westward Movement, the courage of the pioneers, and how hard life was for them as they struggled day after day. Someone will usually count wagons; someone else will say that it must be up in Western Nebraska because of the kind of cactus in the foreground. Another will talk about the immense land acquired in the Louisiana Purchase, which became the Great Plains of the USA.

Then I will ask my "where-are-we-on-the-Ladder" question, and one immediate response will be that we are on the first rung, Reactive Response. Someone else will object and say that we are on the School of Interpretation rung, because we are talking about the Westward Movement and its concept in an interpretation of American History. A third will say that we are in Cultural Context, because what is being shown is not the East or the South, but the West, and we are seeing the geographic culture of the West. All responses have been useful, all have been reasonable, and the students nod in agreement.

Then someone will say, "Somebody talked about the hard struggle it was to cross the plains, but I don't see anything in the picture which suggests struggle. On the contrary, look how peaceful it is. It's a beautiful summer day, the sun is out, enough clouds keep it from being too hot, and there is plenty of grass for the stock to eat along the way. This looks more like it was a group of people going for a long picnic." There will be silence for several moments, then I ask, "What ladder rung would you put <u>that</u> response on?"

Often I will not get an answer, because the previous statement had triggered another, usually from an Indian student. "This is White-man's propaganda. Look at the picture; do you see any buffalo or animals of any kind, anywhere? Or even

an Indian? There is no one in the painting except white people coming across the plains in their wagons. That is not the way it was!" Someone else will say, "Yes, and didn't you say that this was painted in 1951? Wasn't that during the Golden Years of the Western Movies? It looks more like what we see on television about a good day on the trail. It only shows us one part of what really happened."

With these useful responses we have actually done enough. I do not have to summarize or bring closure. Each student has already written his own response to the painting, and has put it in his portfolio. This discussion has changed all that, moving the thinking in many directions. Some students had brought out points that had not been seen by others; there was no argument over who was right, only a cascade of ideas. But more than that, the first assessment showed each student that first impressions are only first impressions, and there is much more to be seen. Some students will come up, ask to see the painting closer up, write down information and go to the library to find out more. They are hooked, and will reel themselves in.

The second assessment will come about the sixth week. We will, by this time, have covered most of the models, so students are more used to talking in class with an analytical approach. We have shown the painting a few more times, so that new visions and Ladder rungs emerge in discussion, inspiring students to go back to their initial assessments and revise them.

To prepare ourselves for the second assessment, I show a different painting: "Visions of Yesterday," by William Leigh, which shows a pair of horses pulling a plough diagonally across a field from right foreground to the left background. An Indian in Levis, moccasins, ragged red shirt and vest walks along behind the plough, one foot on the unplowed sod and the other in plowed dirt. The ground on the left is sandy, but contains wild plants and light blue flowers, as well as a buffalo skull. The plowed dirt is all brown, without any differentiation. In the sky are clouds, many of which are in the shape of Indians riding ponies in pursuit of buffalo.

After the students have looked at it for about ten minutes, I will put the first painting back up, and we show them side-by-side. I let them look for several minutes more and then ask them to begin writing their second self-assessment in response to three questions:

(1) What is my response to the second painting, both by itself and in comparison to the first one?

(2) What am I doing differently in considering the paintings this time that I did not do the first time around?

(3) What do I see as the strengths in my growth, and what do I still need to work on?

The answers to these comparative and juxtaposion effect questions go into the portfolio section on assessments. This time there are no questions about my grading them, nor if they are doing well.

At this point in the course, the third question gets the weakest answers. They can see how they are improving, but do not as yet have a clear idea of exactly what they need to do to continue to improve. I assume this is a matter of lack of practice, and I should not be concerned about their lack of clarity here. Instead, I regard this part as a foreshadowing of what will come in the third assessment at the end of the course, when I ask the same question and get more complete answers.

Another portion of the portfolio is used for their essays on the Escalator, mentioned in Chapter B-2. In that chapter the focus was upon the regional arts and culture sequence courses, but I want to shift here to the Popular Arts or Carmen course, and describe the use of the escalator questions as part of the portfolio accumulation. The six steps are somewhat different, and are labeled Perception, Context, Formula, Strategy, Application and Explanation. Again, the first question begins as an initial and unstudied reaction; each subsequent question builds on the previous one and anticipates the next. Our classroom activities will follow along, providing timely and parallel exercises, which will help students to develop their answers.

The first question is, "Explain why you think gender abuse occurs. Explore your ideas extensively. Do you lean more to individual, societal or biological causation? What are your reasons?" The intent is to get them to talk about abuse and to consider various causes for the condition. The question is open enough to allow many to vent some of their feelings, about whether the man or the woman is to blame and, since they are responding to the specific relationships in the Carmen story, it moves them in a structured fashion from category of behavior causation to their listing of reasons for choosing that specific answer.

The second question is longer and contains many parts. "How are gender relationships depicted or portrayed in the arts? Cite some examples from advertising (TV and magazines), popular music, fiction, television and motion pictures. What abuse-related effects, images and expectations might result from these depictions and portrayals? What reasonable counter-arguments can be offered to the positions you have taken?" This question allows the student to draw upon as well as modify the first essay, while the final part leads them into taking a reverse position from what they have argued, foreshadowing the way in which question three is set up.

Students say that by this time they are using the portfolio as a resource, because they already have so much information in it. To me this means they are going back again and again to revisit what they have already done, resulting in changes in their thinking. This shows up in their essays, since many will write that they previously would have felt differently about some aspect of the question, but at this point in the course have another view. This type of statement often comes from students who have rushed through to answer all six questions in the first four or five weeks, and then tell me they are done. I suggest they go back and take another look, because they have not allowed sufficient time for new ideas farther into the course to become part of their thinking.

Question three has more to do with formulas, structures, components and definitions, but also moves into comparisons and contrasts. "Carmen is called a love-tragedy, but HOW is it a tragedy? Is Carmen the tragic figure? Or is it José? Or is the social context tragic? How does Merimee account for what happened? Bizet? With which do you tend to agree more? Explain. How does "Mother" fit in to the explanation picture here?"

The question has three really powerful parts that students must handle, all of which take their inquiry and response beyond the earlier levels. In the first place, they must define the formula and then apply attributes from the plot to that formula to conclude whether it fits. Having done that with both authors' stories, they then must compare their findings. They also must explain how and why they have arrived at those conclusions. Third, they must delve into abstractions, because "Mother" is never a full persona in either story, but always a hovering apparition in the background. Despite that, we are aware in our own times of the influence of parents upon our behavior, and the response thus calls for conjecture --- anticipating the step into Schools of Thought.

The strategy side of things, linked both to earlier and later questions is here. It says, "Storytellers make use of images, structures, characterizations, juxtapositions, developments and sympathy in highly strategic ways. Explain your understanding of these techniques and the reasons for using them with examples from several "Carmens." Details and examples are expected." This question builds upon the previous one, and also follows through on the contextualization of male-female relationships perception and causation, which are in the first two questions. Important however, are the matters of how the author uses the techniques in a strategic manner to gain the sympathy or disfavor of the audience.

These lead directly to the arguments of how and why. Question five applies these matters; "Develop some of your own (individual or group) scenarios (with techniques and strategies) for a Carmen-José story by using several different art forms. Explain how the arts imperative affects the actual implementation of your efforts." The intent is that students will use the creative opportunity to establish their roughed-out plot and storyline in ways that will demonstrate their ability to apply, and include their understanding of how their story will vary when it must shift to another medium.

The final question sums up. "How Carmen is explained varies, depending on who you ask. Academic disciplines have different foundations, focuses and points of view, as do the many schools of thought described in your text. Develop a simulation debate among at least five different academic or interpretative positions in explanation of the Carmen-Jose tragedy, as it would be argued from those respective mindsets. At least two of the positions should be Post-Modern." Not only does this one pull the many parts together, but it serves as another creative opportunity, and some of these will be brought into class discussion during the final two weeks.

There is no final exam. Students are asked to turn their portfolios in at the end of the fourteenth week. A couple of spin-offs derive from that. They are finished with the course and are under no pressure to finish up anything during "dead" week or final exams week. If one or two students have emergencies and need extra time, a buffer exists for them, and after many years of experience with teaching in this manner, I am convinced that we have covered enough ground by having spent twenty-eight periods of seventy-five minutes on the learning. The final four periods can thus be devoted to showing projects, discussing them, reflecting on the course and what we see now, that did not seem to be there before.