

**“It Don’t Mean a Thing If It Ain’t Got Those Strings”
or
Bringing Media Ecology and Applied Behavioral Science
Together
for Enhanced Awareness and Improved Action**

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Just as string theory in physics is bringing together the general theory of relativity and quantum mechanics, there may be similar promise in crossing the “strands” of media ecology and applied behavioral science. While media ecology is the study of media environments and the effects of technology, applied behavioral science focuses on the theory and practice of group dynamics, organizational change, and societal change. Bringing these fields, or “strands,” together has the potential to enhance awareness and improve actions for guiding business and social change in our increasingly technopolistic society.

Departing from Duke Ellington’s song “It Don’t Mean A Thing If It Ain’t Got That Swing” commenting on music, the same kinds of things have been said about the general theory of relativity and quantum mechanics in physics. While each theory has made momentous contributions to our understanding of the universe, matter, and energy—general relativity with its macro focus on space/time, black holes, galaxies, stars, solar systems and planets and quantum mechanics with the micro focus on protons, electrons, mu-masons, nutrinors, and quarks—both have been reaching their limitations in providing further guidance. More recent efforts at bringing general relativity and quantum mechanics together via string theory have added a fresh “swing” leading to the development of a “theory of everything” with additional progress in physical science (Greene, 2000; Hawking, 2001; Hawking 2002).

Just as with general relativity and quantum mechanics, one might say something similar about media ecology and applied behavioral science. Both media ecology and applied behavioral

science have made important contributions to the understanding of media and in guiding human interactions. However, each field seems to be reaching a level of maturity when the stimulation from bringing them together could yield further advances.

The intent of this paper is to introduce the kinds of promise suggested by crossing the fields or “strands” of media ecology and applied behavioral science. With this intent in mind, the paper provides a brief orientation to each “strand”—media ecology and applied behavioral science. It goes on to look at some of the strengths and current limitations of each discipline, discusses initial bases for bringing these disciplines together and indicates potential benefits. Next, this paper describes some preliminary ways of bringing these fields together with examples from sessions this author has conducted at professional conferences. Finally, this paper concludes with a few ideas for additional ways the disciplines could come together to promote greater awareness of technology’s social effects and better ways to manage organizations in our increasingly technological society.

Background on Media Ecology and Applied Behavioral Science

Both media ecology and applied behavioral science began to emerge around the same time during the mid 20th century. While there are some indirect connections between them, these fields seem to have remained fairly removed from one another for most of those people familiar with either one of them. However, some individuals, like this writer, have developed an appreciation for both fields. The following sections offer a brief orientation to each discipline.

The Media Ecology “Strand”

Media ecology is the study of media environments and the effects of technology on people and society, although there is certainly more to it “than meets the eye.” One scholar has described

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media ecology as a “compound” or multiple perspective, an emerging meta-discipline, a pre-paradigmatic science broadly defined as the study of complex communication systems as environments (Nystrom, 1973). In a later book, an author has equated physical space and face-to-face situations with media by viewing both as information systems, thereby exploring the effects of the electronic media on identity, role transition, and authority; he has also used the term "medium theory" as roughly equivalent to media ecology, but with social science overtones (Meyrowitz, 1985). More recently, another scholar has described the field as the study of media environments and advanced the idea that technology and techniques, modes of information and codes of communication play a leading role in human affairs (Strate, 1999).

A prominent writer in this vein has chronicled the historical development of technology, examined its interrelationships with culture and society; he has been cautiously optimistic about the potential of technologies, such as electricity, to reverse the effects of industrialism as well as aid in the construction of more humanistic environments (Mumford, 1934). However, another author has specified the role that media and communication play in establishing the “reign of technique” and has been skeptical and suspicious of this trend (e.g. Ellul, 1964, 1965). A popular writer, describing his perspective as “media epistemology,” has synthesized the literature on technology systems and has used this stance to critique technological development; more particularly, he has chided the role that television has come to play in contemporary American culture as we “amuse ourselves to death” and become ensnared in a burgeoning “technopoly” (Postman, 1985, 1992).

In the midst of the writers mentioned above, Marshall McLuhan has been the most central figure in media ecology because he produced the first great synthesis of media ecological thought and promoted its popular appeal through a number of works, including some with

critical acclaim and/or best seller status (e.g. McLuhan, 1962, 1964). McLuhan and other similar thinkers who he referenced such as Edmund Carpenter, Edward T. Hall, Eric Havelock, Harold Innis, and Walter Ong as well as others since then have developed means to look at media and technology in novel ways. Many who have read his books have found early on that McLuhan's treatment of communication media such as the telephone, radio, and television as well as the alphabet, writing, and printing has "jarred" them into awareness. They have experienced McLuhan's "mosaic" approach revealing the patterns of these and other technologies' effects on social interactions (such as the movement from orality to literacy and back with electronic technology). McLuhan's insights and Menippean style emerged from his doctoral work in literature at Cambridge University, his initial interdisciplinary seminars, and then programs at the Center for Culture and Technology at the University of Toronto (McLuhan, E. and Zingrone, F. 1995; Gordon, 1997; McLuhan, 1997). Scholars have continued to extend this work via subsequent media Studies programs at Fordham, New York University, other academic institutions and their affiliated scholars.

In recent years, the Media Ecology Association (MEA) has formed to facilitate the exchange of ideas and information, promote this perspective in theory as well as in practice, and enlarge the understanding of media. Primarily an academic organization, the MEA provides a means to overcome solitary activity with feedback, fellowship and support for scholars. However it also purports to serve a broader constituency including independent intellectuals, journalists, artists, media professionals, consultants, practitioners, activists, and public officials. The MEA strives to link together such constituents to build a strong and vibrant intellectual alliance and capable community with the unique and meaningful mission to make significant contributions to media scholarship and its application in the "human lifeworld" (Strate, 1999). It is such a commitment

that has dawn this writer and others to the organization. Furthermore, MEA continues to pursue these aims through affiliation with other groups such as the National Communication Association (NCA) with their attendant publications as well as through cross-cultural presence such as links with groups in China (<http://media-ecology.org>).

The Applied Behavioral Science “Strand”

Expressed in a basic way, applied behavioral science focuses on the theory and practice of group dynamics, organizational change, and societal change. The foundation for such a focus grew out of work with the T-Group (training group) as a fundamental method for understanding human interaction—a ten to thirteen person group that ensures an intense group experience with an opportunity for shared learning. Concepts and approaches for experiential learning that evolved from this method have become widely accepted techniques for improving personal, professional and organizational effectiveness (Bradford, 1967).

Psychologist Kurt Lewin, who fled the encroaching Holocaust of Nazi Germany, founded the Massachusetts Institute of Technology Research Center for Group Dynamics. He believed the social sciences could, and must, be used to address the human potential for good and evil. Lewin, and associates Ronald Lippit, Kenneth Benne and Leland Bradford shared a personal and professional interest in the applying behavioral science to integrate democratic values in society. During their work in 1946 for the Connecticut Interracial Commission on inter-group tensions, they discovered a new and important method of adult learning. This methodology emerged from the observation that experiences shared by a training group—learning by experience rather than lecture and reading—provided high potential for diagnostic study, evaluation and, most important, for changing behaviors (Marrow, 1969).

This process of group building and learning derived from it began to be used in a variety of organizational and community situations, nationally and cross-culturally. These activities evolved into developing the skills of "change agents," as they came to be called. For organizational leaders, particularly those in corporations, problem-solving mechanisms arising from T-Group methodology presented new opportunities for addressing issues in various sectors of society. Benne, Bradford, and Lippitt along with Jack Gibb (Bradford, Gibb, Benne, 1964; Benne, Bradford, Gibb, and Lippitt, 1975) and Richard Beckhard (Beckhard, 1969; Beckhard and Harris, 1977) as well as others started the work of "writing up" their experiences and research in a variety of articles and books. Such leading social scientists strongly contributed to the evolving field of Organizational Development (OD)—a wide range of strategies for organization improvement (Weisbord, 1987; French and Bell, 1990)—and have had a dynamic effect on administration and management.

The organization that emerged from the early T-Group activities became known as the National Training Laboratory for Group Development, and is currently known as the NTL Institute for applied behavioral science. NTL has continued through various struggles and successes in advancing the method, practice, and theory initiatives of its founders in seizing the potential for participatory action in educational and organizational settings. NTL's educational offerings, university affiliated programs and publications (e.g., the *Journal of Applied Behavioral Science*) continue to contribute a body of knowledge to the field (<http://www.ntl.org/>).

Moreover, many who have had contact with NTL and its early pioneers, such as this writer, have also been involved with various "spin-offs" that have contributed to applied behavioral science. Spawned by NTL, the OD Network is an association of organization development

practitioners representing a range of professional roles in a wide variety of organizations including many independent and corporate consultants (<http://www.odnetwork.org/>). Additional professional groups include the OD Institute, the Association for Quality and Participation, the International OD Association, and Linkage along with other affiliations. Prominent organizations such as the Tavistock Institute in London, which had its origins around the same time as the NTL, have contributed prominently to the field with approaches such as action research, socio-technical analysis, and other social-psychological perspectives (Trist and Murray, 1990). Much complementary activity also occurs in university schools of management and related associations such as the Academy of Management (Pettigrew, Woodman, and Cameron, 2001).

Further applications of applied behavioral science have arisen to represent developments in organizational change management, human resources, organizational design and development, training, and dealing with cultural /gender diversity. Stimulated by research and inquiry through various academic and professional groups, additional means for discovery and application of knowledge in group dynamics, organizational change, and societal change have continued to emerge to the present time (e.g. Lawler, Mohrman, Mohrman, Ledford, Cummings et al, 1999). More recent works have included those on supporting technology implementation as well as the design of networked and global organizations (Cohen, Bikson and Mankin, 1996; Mohrman , Galbraith, and Lawler, 1998; Galbraith, 2000).

A Rationale for Crossing the Media Ecology and Applied Behavioral Science “Strands”

Given their backgrounds, one may see some common interests, but it may not be clear at first glance why joining these independent disciplines at different points could, or would, provide added benefit. However, when looking at some of their respective strengths and limitations, we begin to see suggested synergies to be gained.

Strengths and limitations of media ecology include the rediscovery of McLuhan and his relevance with the spread of the internet and its accompanying hype. Fortunately, there have been those who have extended and reinterpreted the McLuhan “message” providing “laws of media”—that media enhance, obsolesce, retrieve and reverse different interactions—and relating them to personal computers, faxes, VCRs, cell phones, CDs, and other digital “appliances” not around during his life (e.g. McLuhan, 1998; Levinson, 2000). Others have examined the marketing phenomenon that occurs with such discoveries and have recognized McLuhan’s contribution as a serious scholar (Theall, 2001). Along with McLuhan’s resurgence, there has been greater interest and growth in the field of media ecology as evidenced by the expansion of academic programs and associations. Yet the solutions to the issues identified have seemed to be revised curriculums and additional studies, rather than offering tangible means for dealing with an increasingly digital world. Media ecology appears to be like general relativity in getting the “big picture” of space/time, black holes, galaxies and gravitational attraction, while not being able to reconcile with the subatomic.

By the same token, applied behavioral science has its own strengths and limitations that also seem to go together. Some of these conditions include its diffusion and use within corporate America as well as its allegiance and cooptation by technology—as other social sciences have been criticized (Postman, 1992). One study predicted that organizational change management would be a major area of growth related to information systems integration and e-business (Hedin and Kobus, 1999). Some writers also extolled the “steps to nirvana with e-business” and the importance of addressing its people aspects (Sawhney and Zabin, 2001). However, an economist foretold, and a journalist chronicled, the “coming of an internet depression,” the shrinkage of the consulting workforce and a hiatus in the “free agent nation” (Mandel, 2000,

Gleick 2002), not to mention the terror and shock of September 11, 2001 in New York City. Applied behavioral science seems to be like quantum theory with its ability to explain the behavior of elementary particles and unlock nuclear energy, while not being able to address movement in the wider universe.

Despite their limitations, the strengths within the media ecology and Behavioral Science disciplines provide a fascinating array of similarities and differences on which to build. Among these building blocks include McLuhan's use of Edgar Allan Poe's Maelstrom story and riding the current of the whirlpool as a recurrent theme when understanding media and technology for escape from disaster and a means for survival (McLuhan, 1951). Just as McLuhan analyzed advertisements, got close to marketers and business consultants, e.g. Gossage and Feigen, Muller-Thyme, Peter Drucker (Gordon, 1997), the early NTL investigators went with their awareness of group process and followed that current for personal and organizational development (on both a professional and institutional basis). Both fields have also tended to grow through collaborative and interdisciplinary activity. In contrast, media ecology has been more academic and applied behavioral science, as its name indicates, has tended to be more instrumental and pragmatic, although the later has had its share of scholars (e.g. Argyris, 1970; Argyris, Schon, and Payne, 2002). In addition, media ecology examines assumptions, premises, and perceptions particularly those pertaining to technology at a broad social level, while applied behavioral science deals more with intensions, expectations, and behaviors within the interpersonal relationships, groups, and organizations. Media ecology has been more *literate*, applied behavioral science more *oral*. As another has said, media ecology has tended to be less Yin vs. Yang because it has neglected the social concerns (Sternberg, 2002) that are typically subjects of applied behavioral science.

Taken together, media ecology and applied behavioral science suggest an energizing combination. Such cross-pollination could include an awareness of media, technology and their effects combined with an appreciation and ability to assist human processes toward effective action. It could entail concepts and tools to help in producing effective human action guided with an awareness of the technopoly within which it is enmeshed. Using these concepts and practices with one another offers the prospect of enabling people to experience, perceive, and devise actions to cope with new communication media, technologies, or other human innovations within our organizations and society—oral tribal-ness and civilized literacy—both Yin and Yang.

Some Media Ecology and Applied Behavioral Science Combinations

At recent conferences, this writer has conducted sessions where those in the respective fields of applied behavioral science and media ecology have begun to become acquainted with one another's fields and key aspects. They also became involved in exercises that begin to not only talk about, but also demonstrate, benefits from their confederation.

In sessions conducted with different groups, more particularly workshops with the Polarity Management/Real Time Strategic Change Learning Community, the Western New England OD Network, and the Eastern Academy of Management, this writer exposed participants to media ecology concepts that can complement applied behavioral science approaches. More specifically, these sessions explored how the tetrad (McLuhan and McLuhan, 1988; McLuhan, 1998), a perceptual “tool” for surfacing the hidden effects of communication media and technologies, can be applied to examine business improvement and management trends. Such trends could include total quality management/reengineering/six sigma/process management (Hammer, 2002), supply chain optimization (Poirer and Bauer, 2000) enterprise systems (Davenport, 2000), and e-business (Sawhney and Zabin, 2001). The sessions also explained how applied behavioral

science approaches such as Polarity Management—that identifies opposing issues as polarities to be managed rather than problems to be solved (Johnson, 1992)—and Real Time Strategic Change—that provides methods for broad involvement in preparing for an organizational change upfront (Jacobs, 1997)—can be used with the tetrad to facilitate diagnostic, predictive and prescriptive actions.

An example of a tetrad applied to “the New Economy (early e-Business)” appears in Figure 1 and provides an illustration of the Workshop content and activity. As for any communication medium, technology or other human innovation, the “laws of media” apply to management approaches and trends. More particularly, a management approach or trend *enhances* different aspects of managerial activity and makes obsolete, or *obsolesces*, different aspects of organizational life. It also *retrieves* previous human patterns, and taken to extremes *reverses*, flips or transforms into a different organizational situation--with new dilemmas to be addressed.

Enhances	Reverses
<ul style="list-style-type: none"> • Ease/speed in ordering/promoting via the Web/wireless • Different business models, e.g dot-coms • Virtual teams & communities, free agents • Faster economic & stock valuation 	<ul style="list-style-type: none"> • Multiple channels for products/ services • Business hybrids, e.g clicks & mortar • Corporate contraction/ corruption/crime, servitude, and displacement • Energy depletion & tech led economic downturn
Retrieves	Obsolesces
<ul style="list-style-type: none"> • Ancient bazaar & marketplace • Itinerant Peddler • Craft & trade guilds • Seditious deconstruction & group bricolage 	<ul style="list-style-type: none"> • Companies owning all their own processes functions • Internal focus • Traditional jobs & organizations • Central control

Figure 1. Tetrad for the new economy (early e-business).

More definitively, in these workshops, this writer introduced the tetrad to attendees, shared a number of samples focused on management trends, then formed them into small groups to construct tetrads for current managerial approaches and organizational trends with which *they* were familiar. After small groups used the time allotted to construct their tetrads, this author had them share their small group work with the total group. Subsequent discussion was useful to all in generating insights not only about the management trends examined, but also about the use of the tetrad within organization development. Participants recognized the unforeseen aspects of topics such as “distance learning,” “knowledge management,” and “human capital.” They also observed that they readily generated “enhance” and “obsolesce” parts of the tetrad, but that the “retrieve” and “reverse” aspects required more concentrated effort on their part.

At the Media Ecology Convention, this writer gave those participating in a panel session a passing acquaintance of applied behavioral science and its potential for contributing to media Studies. During this different type of session, he provided some orientation to applied behavioral science and its current use in business improvement efforts with a few examples (see above). In addition, he had those present take part in a short exercise involving small/large group dynamics to demonstrate that the confluence of these fields might stimulate further learning, enhance practice, and improve theory as described below.

In setting up the exercises, this author described how there were four key aspects of group and organizational life—*meaning, structure, action, and caring*—and that individuals usually have a penchant for one of these aspects. He asked individuals in the session to go and stand in one of the corners of the room with the sign (signs were posted beforehand) naming the aspect that was their particular preference. When participants were standing in the corners depicting

their choices, this author offered an explanation and interpretation of this applied behavioral science activity (Jamison, 1988), as well as relating it to media ecology.

In referring to the four key aspects of organizational life as depicted in Figure 2, this author noted that *meaning* corresponds with organizational mission or purpose, *structure* with organizational goals and objectives, *action* with activities and plans, and *caring* with relationships. He went on to relate his surprise that the 30-40 participants had distributed themselves almost equally among the four corners. He was surprised because his hypothesis had been that MEA members would be concentrated in the *meaning* and *structure* corners rather than being evenly distributed. He explained that all four aspects are needed for effective group and organizational functioning. Furthermore, most often companies have imbalances that they have to address or compensate for-- in some manner.

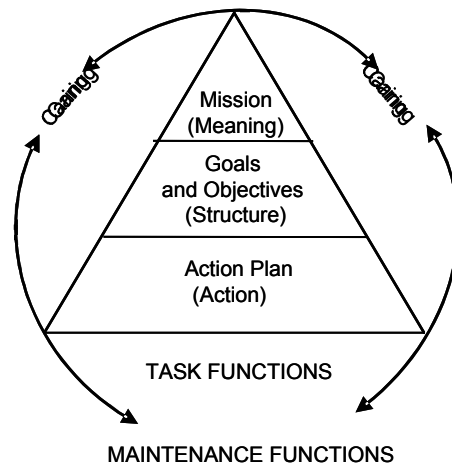


Figure 2. Key aspects of organizational life.





 Enhances	Reverses 
<ul style="list-style-type: none"> • Structure – Goals & Objectives 	<ul style="list-style-type: none"> • Action – Plans & Activities
 Retrieves	Obsolesces 
<ul style="list-style-type: none"> • Meaning – Purpose & Mission 	<ul style="list-style-type: none"> • Caring - Relationships

Figure 3. Tetrad—media, technology, human innovations, and key aspects of organizational life.

In relating the tetrad to the aspects of organizational life, as shown in Figure 3, this writer suggested that communication media, technologies and other human innovations seem to emphasize or de-emphasize different behaviors as their effects are revealed. For example, technologies seem to *enhance structure* or emphasize particular goals and objectives, and *obsolesce caring* or attention to human relationships. They also appear to *retrieve meaning*, or the search for mission and purpose, and if pushed to extremes *reverse into action* or development of plans and activities meant to deal with these effects. While these assertions could use additional attention to confirm or rearrange key organizational life aspect positioning relative to the tetrad, they appear to make sense as well as infer provocative relationships and questions for further exploration.

This writer also remarked that his work with technology companies, and organizations doing large scale information system projects, lend support to this interpretation as their members tend to prefer *structure* and *action* rather than *caring* and *meaning*. Overcoming such imbalances, or restoring balance within such companies as a means of promoting increased effectiveness, is often a concern of applied behavioral science activities such as organization design, organization development and management development. He mused that media ecology tends to have similar aims in terms of perception, understanding and use of communication media and technologies. Such shared concerns and the search for balance within the two disciplines, as shown in this exercise, appear to indicate that further investigation of these concepts and activities could be enlightening and fruitful.

Further Combination Possibilities – Blending the “Strands”

In addition to refinement of the combinations and experiences mentioned above, there could be additional areas when media ecology and applied behavioral science might come together for mutual benefit. There could be further work related to the tetrad, e.g. its use in looking at the Microsoft symbol and the “JoHarri Window” (Luft, 1969) to “play with” their similarities in form for insights into software and human interaction. Another prospect includes using the Orality/Literacy emphasis as described in the work of Ong (Farrell, 2001; Ong, 1982) along with the Organizational Character Indicator devised by Bridges (Bridges, 2000). The fusion of these concepts could enrich efforts to diagnose organizational cultures and appropriate actions to deal with the degree of their oral vs literate proclivities in working with virtual teams. Another possibility involves incorporation of the Task-Oriented Communication Approach described by Schwartz (Schwartz, 1973) with Change Enabling Communication approaches described in the work of others (e.g. D’Aprix, 1996; Larkin & Larkin, 1994). Such teaming might help reorient

activities in the “push/pull” environment that includes increasing use of the internet and multiple communication channels.

Still another area of exploration includes increased understanding and use of theater (Frye, 1957) and the application of improvisational/playback theater methods (Fox, 1998) to reveal the hidden dimensions of leadership, business strategy, and organizational interactions (Goleman, McKee, and Boyatzis, 2002; Eisenhardt, 2002; Kantor, 2002); affiliations with groups such as Drama Works who are pioneering such efforts could be useful. In addition to the avenues alluded to above, future OD conferences and MEA conventions might offer opportunities for participants to take part in such exercises. Tools such as trust community and Open Space Technology meeting designs (Gibb, 1991; Owen, 1997) might guide different experiences that would allow participants to “try out” such “hybrid” media ecology and applied behavioral science possibilities. Through such vehicles, members might better explore similar topics of interest and share them with their wider communities.

Conclusion

As suggested in this paper, both media ecology and applied behavioral science are rich fields with solid heritages. Each discipline has strengths that can compliment one another and off-set their limitations. For instance, media ecology, with its penetrating awareness of technological effects, can help free applied behavioral science from the clutches of technology and its tendency to become swept along by management trends. Applied behavioral science, with its practical action-oriented style, can bring media ecology out of the Ivory Tower and into the workplace. Combining concepts and approaches from media ecology and applied behavioral science can enhance one another as well as generate new insights and applications. For example, prior use of the tetrad with Polarity Management/Real Time Strategic Change in examining management

trends, such as e-Business, may have helped foretell and minimize some of the excesses leading to the crisis in confidence we have experienced as a result of the Enron and WorldCom investigations. Similarly, by combining concepts and tools utilized with our other emerging “maelstroms” we could better understand and find means to manage through them for survival and evolution.

Bringing together the “strands” of media ecology and applied behavioral science provides further “material” with which each can work (Strate, 2000) as well as additional outlets for their benefits. As suggested above, this writer and others can continue to explore a number of such connections and use these offerings to cross-over and add to future conferences and publications in innovative ways as some scholars and writers have done earlier and lately (e.g. Eisenstein, 1980, Shlain, 1999). They can enable people to deal with broader media and technological developments as well as personal, organizational and societal changes both conceptually and experientially. Perhaps as recent authors have suggested, this combination may also contribute as string theory has in physics to a “unified approach” concerned with human understanding (Logan, 2000; Wilber, 2000) as well as in guiding business and social change in our increasingly technopolistic society. And to paraphrase Duke Ellington once again, one could say with such a combination that “It Does Mean a Thing Cause It’s Got Those Strings.”

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