

Communication management in a millennium of chaos and change

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Abstract

Changes occur in organisations because of changes in the environment. Conflicts arise between the organisation and internal and external stakeholders of the organisation because of these uncontrolled influences. Small points of disorder may easily escalate into disordered crises and chaos (bifurcations and the butterfly effect). Communication management - and specifically constructive conflict management - could lead to 'positive chaos' and a culture (strange attractor) of constant change. Positive chaos implies an unstable, seemingly disordered situation that could bring about productive, creative, and improved results. Communication management could be used by organisations to reorganise themselves out of disorder and chaos by facilitating conflicts and diversity. Strategic planning will become even more important, but will have to change from the basic premise of control and prediction to scenario planning, and the emphasis will be on relationship building.

Introduction

Moving into a new millennium, the world seems to be unstructured, strange and out of control. We cannot predict what the world will look like in twenty years or even ten years from now. Global changes are taking place in all spheres of business, socio-economics and politics - as was evident in the break-up of the Soviet Union and Communism, the development of the European Union, the fall in world markets, and developments of information technology and the Internet. The Information Age will bring opportunities to some and threats to others. For many the arrival of the year 2000 has created images of the end of the world, the coming of the antichrist, revolutionary technologies taking over the world and replacing human labour, and the age of the 'Sovereign Individual' (Davidson &

Rees-Mogg, 1997:12). According to Davidson & Rees-Mogg (1997:14) "the transformation of the year 2000 will not only revolutionise the character of the world economy, it will do so more rapidly than any previous phase change."

Whether these predictions are based on theory, on prophecy, or are seated in human consciousness, changes are visible and real. In South Africa the rapid changes in politics and the economy have forced organisations into transformation, and they do not recognise the systems as they are now compared to the way they were a decade ago. South African society and organisations are forced to make paradigm shifts never imagined during the previous 'regime'.

In this new age and millennium it is difficult to imagine what organisations will look like. Can we imagine a world where beliefs in objective measurements are challenged? Where managers cannot set strategic plans because they do not know what factors from the environment could throw those plans off balance? Reality is seen as simply that which we set out to measure. Nothing is simple cause and effect. Everything is so dynamic and flexible that it becomes chaotic. Everything is always new and strange and out of control. There is no right or wrong and no conformity. There is a new reality out there waiting to be discovered. This is the world of the new science, the post-modern, the chaos or complexity theory (Wheatley, 1993:12; Holtzhausen, 1995:174; McDaniel, 1997:25).

The chaos theory developed from the systems theory, and can be applied to a wide spectrum of disciplines (Murphy, 1996:95). It is viewed as the "scientific version of postmodernism, scientific metaphor for late-20th-century cultural values of relativism, plurality, and chance" (Murphy, 1996:96). The chaos theory makes a paradigm shift in postulating that forces of disorder, diversity, non-linearity, unpredictability, and instability are controlling the universe.

When the organisation is threatened by environmental changes such as crises or competition as a result of information technology development or increased customer demands on service and product innovation, the need for communication increases (Grunig, 1992:344). The role of the public relations or communication manager as part of strategic decision-making is becoming increasingly important as organisations are redesigning to become more open and their structures more horizontal in order to adjust to fast-changing environments in the Communication Age (Gouillart & Kelly, 1995:290). Excellent organisations use the potential of communication management to assist in transformation and the relationships with the environment (Dozier, Grunig J. & Grunig, L., 1995:126). Communication practitioners are also more likely to play a managerial and strategic role in an organisation during times of instability.

This paper attempts to clarify the growing importance of communication management (especially the role of relationship management) during change in organisations against the backdrop of the chaos theory. Three main concepts are discussed: communication management (with emphasis on relationship and conflict management), relevant key concepts of the chaos theory, and the process of change management against the backdrop of the other two main concepts.

Public relations and communication management

Grunig and Hunt (Grunig J., 1992:4) define public relations as “the management of communication between an organisation and its publics.” According to Grunig, this definition equates public relations and communication management. For the remainder of this paper, the term communication management will mostly be used, because the term ‘public relations’ is widely misunderstood, especially in an administrative management sense. Communication management will be applied to administrative management and the management of change; therefore the term ‘communication management’ will be better understood by all parties concerned, as well as by those to whom the subject area is applicable.

The term organisational change and transformation refers to the process of “reconstructing an existing organisation - removing what does not work, keeping that which does, and implementing new systems, structures, or cultural values where appropriate” (Head, 1997:5). Head (1997:4) explains that change efforts often fail because the changes are not communicated well, because organisations fail to align change efforts to the strategic goals of the organisation, and because they do not facilitate learning or advanced training. Well-developed organisational change should be a strategically managed process.

Studies and models of change management have either ignored the importance of communication as a contribution to successful change, or seen it only as a tool in changing culture - one of the first stages of transformation (Gouillart & Kelly, 1995; D’Aprix, 1996; Sanchez, 1997). Communication management was not seen as an important contribution in guiding the complete transformation process in terms of building important relationships inside and outside the organisation, thereby actually facilitating successful strategic change management.

Because of unfamiliar concepts being introduced in the field of chaos theory and change management, their implications for, as well as applications to communication management will be discussed once they have been clarified.

Chaos theory and strategic management

The chaos theory started from the tenets of the systems theory and cybernetics. It grew into, as summarised by Overman (1996:487) from various definitions, “the study of complex, dynamic systems that reveal patterns of order out of seemingly chaotic behaviors... the study of complex, deterministic, non-linear, dynamic systems... so complex and dynamic, in fact, as to appear chaotic.”

Chaos is “the final state in a system’s movement away from order” (Wheatley, 1994:122). It can be understood as the state where a system cannot sustain a stable behaviour pattern because of an increasingly changing environment, and leads to the system reorganising itself to adjust to these changes (Dennard, 1996:498). Chaos theory attempts to understand why systems seem not to function in linear, predictable, conventional ways, but when looked at from a distance, patterns and structures can be identified (Murphy, 1996:96). The term can be used to explain many natural and artificial phenomena such as weather patterns, stock prices, economies, traffic patterns and even biological aspects such as heart arrhythmia (Overman, 1996:487).

What chaos is not

The term ‘chaos’ is a misnomer, for although it seems to implicate total disorder and no traceable pattern, it is still deterministic and basically Newtonian in that it provides definite answers and methods (Overman, 1996:489). Behind all the order and non-linearity observed in chaos states lie order and pattern. New relationships and structures emerge out of what seems to be out of control. According to Wheatley (1994:20) “there is so much order that our attempts to separate out discrete moments create the appearance of disorder”. If we view chaotic systems over time and from a distance, they always demonstrate inherent orderliness (Briggs & Peat, 1989:14; Wheatley, 1994; Youngblood, 1997:47).

The chaos principles were derived from the actually ‘positivistic’ sciences of physics, mathematics, biology, and psychology, and have now also been applied to the administrative sciences and the management of organisations. To understand the profound influence of the ‘new science’ approach to organisations, it may be of value to highlight its contrast with the traditional view of management.

Traditional views of management

The traditional ontology of management science relies very heavily on the fact that systems that change cause conflict between parties involved in and influenced by the system (Dennard, 1996:495). Management sees its role within this paradigm as reducing conflict, creating order, controlling chaos and simplifying all the complexities created by the environment. Within the views of Newtonian science, organisations are operated according to deterministic, predictable and stable modes (McDaniel, 1997:21). Possible outcomes are predicted and alternatives for action are planned, and these are communicated throughout the organisation. If these predictions are false, management perceives them as being mistakes. Only if successful predictions can be made, and if activities are well planned, are organisations considered to be effective. Risk and surprise should always be avoided, and the company's performance is plotted out and strategically planned. Variations and disturbances are signs of poor management (Youngblood, 1997:20).

Great mistakes are the consequences of large causes. Conflict or crises are the results of poor planning and loose control. If people are confused and uncomfortable, management sees it as a problem that needs to be addressed (Flower, 1993:50). Systems should run smoothly and according to tried and tested models and programs. Structure and the control of having a finger on everything are the only way to keep systems from disintegrating into total chaos and ultimately distraction (Wheatley, 1994:23). Change according to this worldview is seen as "overcoming variations to ensure the status quo" (Youngblood, 1997: 54).

The classical management approach, still followed in many organisations, 'buy' productivity and employee loyalty with benefits and compensation (Youngblood, 1997:118; Dennard, 1996:495). Income level and the employees' value are measured by the income earned. If employees do not perform as expected, negative feedback is brought in to 'take control' of the situation. This negative feedback includes activities such as "planning, budgeting, measuring, performance reporting, analysing and summarising" (Youngblood, 1997:54). Problem-solving strategies are the answers to problems in the organisation. Boundaries in the form of rules, authorisation levels and well-structured organisation charts create stability and safety. Behaviour is channelled by the deeply imbedded culture of the organisation in the form of habits, procedures, norms and policies (Youngblood, 1997:5; Wheatley, 1994:28).

The traditional view of management in terms of communication is that information is power and has to be controlled and “fed to employees in little doses” (Flower, 1993:51). This implies that structures determine the information needed and that perceptions must be managed by feeding the ‘right’ information and withholding information that may lead to chaos (Youngblood, 1997:62).

For many decades, this approach worked well because the pace of life was slower, managers’ authority was rarely challenged, jobs were more certain and the environment was more stable (Youngblood, 1997:8; Peters, 1987:7; Flower, 1993:50). However, developments in information technology, overloaded systems, better informed employees, world-wide access to information and even family life changes such as the roles of men and women, have caused a revolution. Turbulence in society has created uncertainty and complexity and has moved organisations to new approaches and worldviews.

Appreciation of chaos for organisations and management

New approaches to management bring a freedom of less control and a more organic, holistic and ecological organisation - living systems (McDaniel, 1997:23). According to Youngblood (1997:28), “[l]iving systems operate in complex environments where centralised control would be a one-way ticket to extinction”. Organisations that operate like living systems are more open, flexible, creative, balanced, and respond more to changes in the environment. Ecological organisations look at stages of change in the environment and adjust their strategies accordingly (Sudharshan, 1995:35). They are also more caring and strive toward healthy relationships with groups that could be influenced by the organisation and vice versa (Youngblood, 1997:34).

Organisations can adapt, renew, maintain and move to new growth through self-organisation brought about by chaos. The contribution of the chaos theory to management lies in the appreciation of change, chaos and uncertainty, and not in the distrust in and need to control any disorder (Overman, 1996:487). It also lies in appreciating faith in the self-organising nature of chaos (Overman, 1996:488; Dennard, 1996:497). The interdependence of subsystems and the natural co-operative nature of these subsystems and the wholeness of reality, is a further contribution of the chaos theory to management of organisations. The self-organising abilities of systems also contribute by providing hope for management that individual actions can make a big difference (that which is termed the butterfly effect) and that there is order behind the chaos. The perceptions of control and the need to predict make a shift to a much larger scale and order.

A very important addition, specifically relevant to this article, is the participatory nature of the new approaches to management. Wheatley (1994:64) suggests a way out from the non-objective, chaotic and complex world of the new sciences. Traditionally, the interpretation of data and information was done by management, which in turn led to filtering, subjectivity, exclusivity, and over-control. Wheatley suggests that there is interdependence between different subsystems in an organisation (as the extension of the systems theory to the post-modern and complexity theories implies).

This interdependence suggests that all the subsystems should take part in the processes of the system. Participation could lead to richness of information, shared responsibility, more trust and transparency, and ultimately to healthier relationships. This interdependency and participation in turn imply relationships and the sharing in decision making as well as in the dissemination and interpretation of information throughout the organisation.

The process and the building of relationships are the key, and development and maintenance of these relationships are of more importance than the outcomes or the players or objects themselves. Meaning is derived from relationships and not from the party in isolation. Because of the interdependency of systems with the environment, relationships actually give meaning to the entities, and meaning is not situated within the entities themselves (McDaniel, 1997:24).

Youngblood (1997:247) defines a relationship as the “commitment of two or more people to supporting each other in the pursuit of a common goal”. He adds that relationships are not only relevant between people, but include all living systems. The key concepts here are commitment, mutual support and a common goal. Grunig & Huang (1998:23) added control mutuality (which could include mutual support) - joint acceptance of degrees of symmetry, trust, and satisfaction with the relationship.

Relationship building in organisations is an indicator of successful public relations and communication management (Grunig & Huang, 1998:2). Before exploring the benefits of the chaos theory and the implications of the relationship construct on communication management, the most important and relevant concepts of the chaos theory should be explained.

Chaotic concepts

Self-renewal and the self-organising ability of systems

According to Jantsch (in Dennard, 1996:497), living systems have an ability to “continuously renew themselves and to regulate this process in such a way that the integrity of their structure is maintained.” While a system is changing, there is an underlying recognisable structure that maintains it. This order is seated in the holism of the system, and not in separating different subsystems that co-create environments and relationships.

Overman (1996:488) illustrates the self-organising ability of systems with the use of an example. He equates it to a parking lot after a big game. At first the parking lot is quiet and ‘balanced’ or in equilibrium. Suddenly, when the game is over everybody tries to leave at once. Now it moves to a state of not being in equilibrium at all. Everybody moves to the exit simultaneously. Strangely, amidst all the chaos, people start forming lines and although it is a totally unpredictable situation with a lot of frustration and uncertainty, oddly the drivers start organising a system without the help of any traffic controller. This self-organisation eventually leads to fewer cars, until the whole parking lot is empty.

Chaos thus follows an inner logic that is orderly, but it is not a mechanistic order where systems can be objectively researched in order to understand the laws and principles by which it is run (Murphy, 1996:100). The same author (1996:101) describes it as “an unstable combination of randomness and plan, broken by flash points of change”. The mechanistic order of the Newtonian view of systems in equilibrium states that systems maintain stability by using entropy, or negative feedback. Entropy is “an inverse measure of a system’s capacity for change. The more entropy there is, the less the system is capable of changing” (Wheatley, 1994:76). Youngblood (1997:54) is of the opinion that negative feedback activities in management would be “planning, budgeting, measuring, performance reporting, analysing, and summarising”.

Positive feedback would be when small disturbances provide inputs that provide further inputs for more information and lead to more movement and new output. Initial uncertainties are amplified until they reach critical mass and escalate to total disorder (Youngblood, 1997:37; Murphy, 1996:97). But this positive feedback also means that some of the original information or patterns always remain in a way. The system has continuity and the reinforcing loops lead to growth and advancement of the living system and ultimately also to a higher level or order.

Youngblood (1997:57) advises management to use disturbances by concentrating on creative possibilities and lateral thinking naturally initiated by the situation and by allowing “freedom of movement required to explore their potential”.

Dissipative structures or self-renewing systems use their energy to recreate themselves and to change to new forms to deal with new information. Their distinct characteristic is that they are resilient, flexible and changing rather than stable and in equilibrium (Wheatley, 1994:92). According to Wheatley, this fluid nature of living systems matures and stabilises the system to become “more efficient in the use of resources and better able to exist within its environment” (1994:92). Dissipative structures need to fall apart, for only then can they truly develop and grow new forms that are free from the past (Fitzgerald, 1996:46).

The flexibility and flow of living systems are necessary for renewal, health, and growth. Flow is the “principle mechanism by which self-organising systems overcome energy and matter dissipation and renew themselves” (Youngblood, 1997:69). If a system is isolated and flow is stopped, it will disintegrate. By over-controlling management often blocks the natural flow in organisations. The freedom of flow of “information, power, personnel, money, and technology” (Youngblood, 1997:71) could ‘free’ organisations and allow for growth.

Butterfly effect and bifurcations

Because chaotic systems are so flexible and changing, sudden variations can lead to points in the system where it rearranges itself around an underlying order (Murphy, 1996:97). These points are called bifurcations, and this is where the system can move into several directions in its evolution (Wheatley, 1994:96).

The word ‘bifurcation’ actually means ‘place of branching or forking’ (Briggs & Peat, 1989:143). It is compared to the flapping of a butterfly’s wings in Hong Kong causing such iteration to an unpredictable size such as a tornado (Aula, 1996:191), thus creating changes in the system’s direction and extent. If these amplifications have reached a stage of becoming completely unstable, described by Wheatley (1994:96) as “crossroads between death and transformation”, the bifurcation can open up futures that are totally unpredictable. This concept creates opportunities for individuals to change the course of organisations by contributing in small ways or asking questions or making suggestions not previously thought of. The non-linearity between cause and effect is illustrated by the bifurcation effect of systems. Tiny causes can lead to big effects. In a

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changing environment, small actions are powerful when accumulated (Dennard, 1996:497).

Strange attractors

Disordered systems are driven by what is called a strange attractor. This is a deep structure within any system that is a natural order behind the disorder, and this order is taken from an attractor that traces a path in a regular pattern (Evans, 1996:492). Even systems that appear to be totally out of control and unpredictable have underlying deep structures that are termed attractors (Murphy, 1996:98). "An attractor is an organising principle, an inherent shape or state of affairs to which a phenomenon will always tend to return as it evolves, no matter how random each single moment may seem" (Murphy, 1996:98).

Most chaotic systems never go beyond certain boundaries - it is contained within a shape with a 'strange attractor' holding it together (Wheatley, 1994:21). Briggs and Peat (1989:73) refer to systems being constantly pulled apart and iterated toward change, transformation and disintegration, although at the same time there are magnetic powers drawing these systems into order and shapes. "[E]ventually all orderly systems will feel the wild, seductive pull of the strange chaotic attractor" (Briggs & Peat, 1989:77).

Some authors describe organisational culture as the strange attractor that keeps the organisation from oscillating into total chaos and disintegration (Murphy, 1996:98). Others describe it as purpose and information. Wheatley (1994:134) described organisations that were in total chaos because of reorganisation and buyouts, and yet some employees created meaning for themselves and carried on working productively: "Employees were wise enough to sense that personal meaning-making was their only route out of chaos" (Wheatley, 1994:135).

If the often quoted function of communication as 'the process of creating meaning' (Spicer, 1997:188; White & Dozier, 1992:99) is taken into consideration, the importance of communication management in organisations as possible strange attractor is rather obvious.

Non-linearity, scale and holism

Systems are interdependent and all levels combine to form a 'big picture' (Youngblood, 1997:47). All the actions and reactions created by changes in a

system should be viewed and addressed in the entirety rather than looking at the various parts. Small changes in chaotic systems can lead to amplified effects that are unpredictable. The process of the growth and changes in a system is thus non-linear. Yet, if any system is viewed over time from a distance, patterns form and cycles can be observed. Looking at a single event at a given point in time only presents a limited view. The scale from which chaotic systems should be viewed to see the order is what distinguishes the chaos sciences from traditional Newtonian sciences.

According to the Newtonian sciences, universal laws apply whether something is viewed in its smallest parts or comprehensively (Murphy, 1996:97). Chaos theorists insist that significant differences can be observed in the structure and dimensions of a phenomenon, depending on the point of view taken and the measuring instruments used. The scale of observation makes the difference, and makes it possible to see the order in what seems totally out of control and chaotic.

Mandelbrot was one of the prominent chaos scientists who explained the complexity of scale by asking how long the coast of Britain is (Wheatley, 1994:128). The answer to this depends on the way you measure the coastline: the more you zoom in, the more there is to measure. Any system looked at from a distance will be easier to understand, and patterns will be more visible.

Fragmentation and interdependence

Looking at systems holistically, an observer can identify relationships between forms that vary in scale but compare in terms of patterns of successively greater magnification and complexity (Murphy, 1996:100). Each pattern takes something from its predecessor, and so builds a history that can be traced over time. These patterns are interdependent, and changes in the one affect the other. To many physicists, the relationships are “all there is to the reality” (Wheatley, 1994:32), and they see particles as sets of relationships and interactions (Fitzgerald, 1996:28). The differences between entities in various relationships make for fluid and flexible systems, and also make predictions and strict lines or boundaries of order impossible (Wheatley, 1994:34).

An important affirmation of the chaos theory is “that the stronger the connections between the diversity of elements comprising a system, the more capable the system will be of sustaining itself when far-from-equilibrium” (Fitzgerald, 1996:29). The ability to change an organisation lies in the challenges of relationship management, and not in changing the structures or functions of

individuals (Fitzgerald, 1996:31). Communication strengthens the connections between entities in a system.

Because of the interdependence of systems and the connections that form between entities, well-defined borders are broken down. "The universe is energy fields coming into relationship with one another, forming something temporarily" (Flower, 1993:53). Networks of information fill spaces and lead to bifurcations. New systems and networks are formed (Briggs & Peat, 1989:178). Constant influences and changes in the environment, and the ever-increasing networks and relationships with outside systems, eventually create 'borderless' aggregates.

Douglas Kiel (Evans, 1996:491) has adapted the principles of the chaos theory to organisational management. He contends that an organisation's boundaries become blurred and that external factors and stakeholders such as citizens and the government define the parameters of dynamics and change over time. The structures of the system change constantly. This creates instability, but this instability is necessary to enable systems to respond to the demands of the environment. Processes should support the organisation's abilities to renew, develop and change. "The way work is organised, the attitudes employees hold, and the technologies they use all serve to create the boundaries of performance boundaries which emerge through dialogue and process" (Evans, 1996:492).

Here lies another big paradox of the chaos theory. Openness to the environment lead to greater sense of identity because of the self-organising ability of open systems. "High levels of autonomy and identity result from staying open to information from the outside" (Wheatley, 1994:92). The process of exchange and interaction actually leads to greater freedom from influences from the environment. If an organisation builds on its core competencies, it can adjust and respond much faster to new opportunities because it is not fixed. At the same time, it is sensitive to emerging markets, changes in consumer needs, and threats from groups who could influence the organisation (Wheatley, 1994:93; Marlow & O'Connor Wilson, 1997:43).

Self-renewing dynamics explain the boundary-spanning nature of growing, open systems that address the total reality rather than its parts (Dennard, 1996:496; Wheatley, 1994:29). Democracy should be maintained by considering and building stable relationships with consumers, citizens and all affected parties of the organisation or enterprise. "Co-evolution is how living systems co-create environments and relationships that sustain and accommodate everything within that environment" (Dennard, 1996:497).

Diversity and Creativity

The dynamics of networks and relationships form their own source of control in learning and changing systems. Over-control inhibits the creative development of an organisation, but an unstable, loosely controlled organisation relies more on process than on structure (Kiel in Evans, 1996:492). Process implies the flattening of hierarchical structures, improvement of information flow and participation of stakeholders such as employees. Kiel suggests that loosely bounded instability is essential in order to create relationships that can respond to changes in the environment. Kiel even goes as far as suggesting that management should create instability by creating diversity and conflict.

At the edge of chaos systems have the greatest potential for change, growth, development and creativity (Youngblood, 1997:28; Wheatley, 1994:123; Briggs & Peat, 1989:150). Creativity leads to higher orders of existence and complexity. Organisations should leave room for creativity, but before creativity there needs to be destruction and endings of the old (Youngblood, 1997:56). This is an aspect of creativity that makes it very difficult for organisations to change.

According to Youngblood (1997:59), there are three ingredients to creativity: "information, diversity and interactions". He contends a creative process in an organisation leads to cross-fertilisation of a wide variety of information between totally diverse entities in a non-linear and uncontrolled way. The more information, diversity and interaction, the more unstable the system will be, but it is at the edge of this chaos that the most growth and creativity will occur.

Communication management is described as the process of "overall planning, execution, and evaluation of an organisation's communication" (Grunig, 1992:4). It is used to manage the relationships between an organisation and its publics on which its success or failure depends, and it is in the business of negotiations, conflict management and building favourable, mutually beneficial relationships (Grunig, 1992:5). The importance and applicability of communication management in most of the above-mentioned characteristics of the chaos theory are self-evident. The following section of the article will attempt to explain this apparent need in more detail, and highlight the use of this approach to change management.

Implications for change and communication management in organisations

Chaos can be described as the times in an organisation when people are confused, feel overwhelmed and as if they cannot make sense of anything. This happens when changes occur in organisations and people move from a state of comfort to something new; when people “move into such deep confusion that they let go of their present conceptions of how to solve a problem” (Flower, 1993:51). This state of confusion and falling apart is necessary for a system to create the capacity to reorganise itself to be better adapted to its new environment. This ability to self-transform is not possible unless systems are willing to move into confusion and chaos (Flower, 1993:51).

But what are the implications for communication and information flow in chaotic systems that change constantly? Traditionally, the immediate reaction to disorder was to clamp down on information and to control it (Flower, 1993:51).

Free flow of information

Flower (1993:51) suggests a radical approach to the flow of information. He suggests that chaos should be created by providing an overflow of relevant and important information to the extent of overwhelming employees. He explains that people then get fearful and frustrated and try to control the information, but feeding them with even more information finally causes them to give up and let go. Then only can people develop the ability to look at the information holistically and form knowledge and wisdom out of it all - knowledge that is adaptive and transforming.

The flow of information in a system is what keeps a system alive (Youngblood, 1997:69). It also builds strength into a system (Wheatley, 1994:102). Communication managers are responsible for the creation and translation of symbols in organisations (Holtzhausen, 1995:154), and the more complex the system, the more the responsibility of the manager to create shared meanings about the interpretations of symbols (Spicer, 1997:188; Gayeski & Majka, 1996:24).

It is also interesting that the more information is processed during times of change, conflict, and complex decision-making, the higher the quality of the decisions that are ultimately made. According to Spicer (1997:242),

“communication managers are more likely to engage in symbol creation behaviours, especially ones involving external stakeholders during times of uncertainty.”

Relationship management

In the management of organisations, effectiveness is achieved when organisations attain their goals, but the goals must be appropriate in relation to the organisation's environment. If not, strategic constituencies within that environment will keep it from achieving its goals and ultimately its mission (Grunig J., 1992:11). Communication management helps the organisation achieve these goals by identifying and building healthy relationships with the strategic constituencies. The healthier these relationships, the more likely the organisation will be successful in achieving what it sets out to achieve. The quality of these relationships determines the effectiveness of the public relations function within the organisation. Living systems and learning organisations should concentrate on relationships and how they work (Flower, 1993:50). “Relationships skills are no longer a luxury. They are a necessity - both in business and for our global survival” (Youngblood, 1997:270).

As mentioned before, the self-organising ability of organisations is the way organisations find order deep within the disorder of chaos (McDaniel, 1997:31). This order is created because of the fact that there is interaction among parties and between systems and their environments. In any organisation, networks and small groups naturally evolve independent from the formal structure of the organisation. This is an example of how systems organise themselves by using communication regardless of structure and control.

New, more fluid structures will replace traditional hierarchical structures and information exchange will increase and accelerate (Marlow & O'Connor Wilson, 1997:61). The ‘network organisation’ as mentioned by Bush and Frohman in 1991 (Marlow & O'Connor Wilson, 1997:68) is designed around communicators who “bridge, meld, and thus create synergy amongst the organisational units.” This involves horizontal communication across departments and organisational borders in order to achieve creativity and innovation. Communication managers could fulfil the bridging functions and facilitate interaction and network building as well as contribute to management by “helping the corporation adjust to this change by creating understanding and making knowledge more productive” (Marlow & O'Connor Wilson, 1997:72).

The role of communication management is becoming increasingly relevant, if not invaluable. The core responsibility of communication management is the maintenance of relationships and the facilitation of interaction (Grunig, J., 1992:11; Ledingham & Brunig, 1997:27). Therefore communication becomes the basic requirement for self-organisation, and communication management becomes the strategic tool to manage the interactions. Public relations and communication management describe communication with "both external and internal publics - groups that affect the ability of an organisation to meet its goals" (Grunig, 1992:4).

Kiel (Evans, 1996:492) propagates that management should create learning organisations that are flexible and fluctuating. He proposes citizen participation and stresses that although this could bring about complexity, "empowered and involved citizens could fulfil the intention of democracy" (Evans, 1996:492). They participate in the process of creating service to customers and clients. Thus they create their own reality and take ownership of it. The borders of the organisation become open and no definite lines can be distinguished. The implications for the other functions within the organisation become prevalent. Strict differentiation between functions in the organisation can cause fragmentation. Subsystems should rather be more flexible with an interdisciplinary approach of working together to achieve strategic organisational goals.

Within the chaos perspective more emphasis is placed on relationships between entities and not on the characteristics of the entities themselves (Wheatley, 1994:68). "Relationships are all there is to reality and nothing exists independent of its relationships with the environment" (McDaniel, 1997:24). If communication management is all about relationship building, then the importance of this field of study to management is self-evident.

Conflict management

Spicer (1997:70-73) argues that although the systems theory highlights that the public relations function attempts to maintain a degree of equilibrium between elements in the environment and the organisation, it falls short because this implies an apparent self-centred focus of the alignment process as well as a degree of control. From the perspective of the chaos theory, the systems approach to public relations also denies the fluctuations in the environment to such an extent that non-linearity and complexity could move the organisation into chaos and disorder. Within the chaos paradigm it is almost impossible for public

relations to be held responsible for maintaining homeostasis in an environment as volatile as the one in which organisations currently have to function.

The political approach of Spicer (1997:138) comes closer to the chaos approach in the sense that it stresses that the more uncertain an environment, the more politics of management will come into play. Spicer suggests that because of the boundary-spanning function of public relations, it acts as an “uncertainty absorbing buffer” (1997:139). During times of change uncertainty abounds and ambiguity arises because of “our inability to understand complexity and change or our inability to forge shared understandings on how best to respond to those complexities and changes (Spicer, 1997:227).

Contrary to the Newtonian approach to organisational management, the chaos paradigm suggests that instead of taking responsibility for the maintenance of equilibrium with the environment, organisations could actually create chaos and ambiguity in order to stimulate growth and development. Conflict would then be only the symptom of the organisations attempting to reorganise itself (Dennard, 1996:498). Managers should become “facilitators of disorder” (Wheatley, 1994:116) and should involve employees to seek disconfirming information. They should set processes in place to support the conflict that organisational ambiguity creates (Wheatley, 1994:116).

Spicer (1997:266) suggests that public relations managers should become more involved in strategic management decision-making the more complex the environment becomes. The relationships with the environment should be analysed to determine what strategies should be followed in conflict situations, and a combination of collaborative and advocacy conflict management approaches should be followed.

Spicer further suggests that the concern over the ethical issues involved in conflict management should be the responsibility of the organisational ombuds person. Because public relations should know the intricacies of organisation-stakeholder relationships, the communication manager should be involved in this conflict management process. Organisations are very often seen as arrogant in the way they manage conflict situations during times of change, because they become involved in an assertion/counter-assertion spiral that could lead to negative entropy and ultimate breakdown. Only a true understanding of relationships, channels that carry information in both directions, and symmetrical conflict management can contribute to wise management decision-making. “Accurately understanding the perspective of outside groups is the art of public relations and the mark of a truly talented practitioner” (Spicer, 1997:297).

Diversity management

With conflict management comes the new role of relationship management from the perspective of the chaos paradigm, that introduces as much as possible diversity into organisations (Dennard, 1996:499). Marlow and O'Connor Wilson (1997:58) argue that "innovation occurs, in part, as a result of an individual or group of individuals having the courage to highlight their relative cognitive diversity". Diversity brings conflict and ambiguity, but it also delivers creativity, variety, strength, increased dialogue and adaptability. Dialogue explores different ideas and in turn results in more complete understanding (Youngblood, 1997:255).

Employees should develop a mindset that enables them to interpret, understand and appreciate diverse points of view without being taken aback by these differences. Organisations will only become diverse if minority groups are empowered (Marlow & O'Connor Wilson, 1997:59) and again the role of ethical conscience that the communication manager could play in the organisation is of significance.

There is also a direct link between excellence in communication in an organisation and the diversity of employees (Dozier, Grunig & Grunig, 1995:151). The choice of channels of communication, understanding different internal and external audiences, and facilitating relationship building and two-way symmetrical communication are competencies that communication managers could bring to effective diversity management (Marlow & O'Connor Wilson, 1997: 59; Dozier, *et al.*, 1995:151).

Issues management and social responsibility

As organisations change they carry a great responsibility to the stakeholders who could be influenced by all these changes. They should be considered in terms of decision-making and should participate in the strategic planning of the changes (Marlow & O'Connor Wilson, 1997:43). As strategic managers, communicators should fulfil a boundary-spanning role, do environmental scanning, and act as warning system in times of crises and change (Dozier *et al.*, 1995:15). Environmental scanning could alert an organisation about issues in the changing environment that could amplify and cause negative entropy in the organisation. Research is an invaluable tool for the communication manager to scan the public

affected by changes and to provide information vital in building relationships, sensing conflicts and strategic decision-making (Dozier, *et al.*, 1995:199).

As with the chaos principle of fragmentation and fractals, issues managers find the relationships between social concerns and relating issues within the organisation (Murphy, 1996:103). These relationships are impossible to fully understand and identify when looking at it in a linear, quantitative and fragmented way, but only when patterns are studied over time and from a distance. Linkages should be made almost with a 'sixth sense' developed by experience of the industry and through the networks and well-formed relationships that communication managers should have in place.

It seems as if the 'flow' of the different publics of the organisation could also be described and identified within the chaos paradigm (Murphy, 1996:103). Just as the flapping of the butterfly's wings can gain momentum and cause a tornado, isolated dissatisfied individuals can gather force by grouping together in increasing complexity. Publics and stakeholders that change constantly in terms of becoming more or less active, depending on the issues at stake, make it difficult for communication managers to identify points of bifurcations and what the 'real' issues are. Murphy (1996:103) suggests that they learn from the chaos theory to look further than short-term demands and complaints and rather search for the true strange attractors in building relationships with publics.

This is where corporate social responsibility becomes relevant as a "concern and active two-way involvement with social, economic and political forces which influence the environment within which it exists" (Overton-De Klerk, 1994). Social responsibility is the constant dialogue with the environment in order to fit the organisation to the needs of publics, rather than trying to influence publics to change according to the needs of the organisation (Murphy, 1996:103). The strange attractors of a chaotic system, such as interest groups, make it very difficult to 'manage' publics. They resist changes from the outside, but their inherent fluctuations cause their own changes. It is thus important to build relationships with these groups through education and dialogue that might amplify to larger, unpredictable and uncontrollable effects.

All systems are independent and an organisation only exists because the environment, within which it exists, allows it to be lucrative. There is a symbiotic relationship between an organisation and its environment and some of the profits generated through customers and consumers should be ploughed back into the environment (Ledingham & Brunig, 1997:27). Ethical and responsible public

relations will contribute to a better understanding between organisations and publics and also to constructive conflict management (Grunig, 1993:137).

Ethical and successful organisational public relationships build on “trust, openness, involvement, investment and commitment” (Ledingham & Brunig, 1997:28). The correspondence between this advice of Ledingham and Brunig for openness, involvement, and investment in the community and the arguments of chaos specialist (see Wheatley, 1994; Youngblood, 1997; Briggs & Peat, 1989; Murphy, 1996; and others) for open, borderless, participative systems, are obvious. It also follows that the more the organisation is in close contact and dialogue with the environment, the easier possible crises can be sensed, issues identified, and all of these aspects included in strategic planning.

Crisis communication management

“Bifurcation refers to a system’s condition or behaviour’s suddenly dividing or branching into two different or merging part behaviours” (Aula, 1996:193). These points of bifurcations can happen if an organisation’s structure becomes unstable or the environment changes so rapidly that the organisation loses control (Aula, 1996:197). The bifurcation points typically occur recursively and thus form bifurcation trees, which are multiple points of change and complexity that may be very difficult to control. This is typical of a crisis situation within an organisation.

A crisis is a bifurcation point in the “organisation’s history which irreversibly changes its culture and business” (Murphy, 1996:106). The points of bifurcation are not random but occur because of accumulated flaws or problems within the system. But just as all crises do not necessarily lead to negative outcomes (compare the building of trust and credibility in the famous Tylenol-tampering crisis), the question can be asked: why should chaos only be seen as negative? If a system could evolve into such a large negative chaotic state, why could the same momentum not be used to generate positive energy and change? Communication management could change around the negative effects that turn into chaos caused by small events (McDaniel, 1997:25). A communication manager could facilitate the building of a positive value, and keep adding positive, very small differences in the initial conditions (if the current culture is seen as negative and undesirable), thereby contributing to large positive outcomes in the future state of the organisation.

Effective communication management is a critical tool in the management of a crisis situation (Marlow & O'Connor Wilson, 1997:84). Organisations often experience an information meltdown during a crisis, or management could decide to take total control of all information and only feed through what they consider important, necessary or 'safe'. It is at this point that open, free, and total flow of information is crucial as propagated by the chaos approach (Flower, 1993:50).

Knowledge management and learning organisations

According to the chaos concepts of holism, systems should be understood as systems and as relationships that exist between all the entities of the system (Wheatley, 1994:9). These systems are ever changing and, if viewed from a distance, display recurring patterns that have characteristics of earlier patterns. Organisations go through cycles and, because of their inherent ability to change, there is also an inherent need to learn (Youngblood, 1997:134). The more changes occur, and the more diversity is built into the system, the more conflict becomes a regular occurrence. But, as mentioned earlier, this can lead to growth and development. Marlow and O'Connor Wilson (1997:79) warns that employees should not only be motivated to make the correct decisions during times of change, but should also be enabled to do it, and the key to empower them is knowledge. According to statistics from the unpublished White Paper published in the United States by Career Systems Advantage, Inc., "knowledge workers (professionals and technical workers) are the fastest growing segment of the workforce, predicted to be 20 percent by 2005" (Marlow & O'Connor Wilson, 1997:38).

Marlow and O'Connor Wilson (1997:79) state that an organisation's inclination to learn is directly influenced by management of information and communication. By examining the process of learning, the communication manager can contribute -through the facilitation of dialogue and the reduction of the barriers - to effective communication. Only by truly listening to the needs of employees, encouraging team interaction, challenging existing approaches, and by providing communication channels to facilitate this, can an organisation truly learn and improve (Head, 1997:197).

Strategic planning to Scenario planning

As organisations become less predictable and less controlled, the question can be asked what the role of strategic planning will be. It may become more important

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to plan strategically by looking at possible outcomes, i.e. scenario management. If we manage according to the chaos theory, we will not be able to predict accurately (McDaniel, 1997:24). The answer could thus be to look at possibilities of what could happen in future and plan for those possibilities (Fitzgerald, 1996:40). These 'plans' would also have to be totally flexible and adjustable. The new slogan should be "order without predictability" according to T.J. Cartwright (in Flower, 1993:50), a planning expert.

If this is true, the importance of ongoing two-way symmetrical communication and dialogue as well as environmental scanning again become significant. The contingency approach to strategic management posits that "organisations are most successful if they align their internal structures and processes with the demands of the environment" (Spicer, 1997:61). This can only be done by maintaining positive relationships through mutual adjustment and constant dialogue, and by scanning the environment for information on possible changes and crises.

Larkin and Larkin (1994:238) summarise it well by saying that in the complex and changing world we live in, "the decision to restrict communication to certainty is a decision not to communicate at all. Communication must be brought into alignment with the sorts of changes we are trying to communicate: uncertain, changing, and full of probabilities".

The role of leadership and communication - the shift in paradigm

McDaniel (1997:29) states that it is the responsibility of management to connect people to help them engage in dialogue so that they can improve the process of self-organisation. The new leaders should constantly seek opportunities to connect groups and individuals. High-quality, long-term relationships where mutual understanding and enrichment is promoted and nurtured should be one of the key issues of strategic management (Youngblood, 1997:115).

Wheatley (in Dennard, 1996:499) notes that the new manager should be more concerned with the maintaining of relationships than ever before, because of the self-organising nature of relationships: "In effect, goals are secondary to those relationships that make it possible to achieve goals". Wheatley further states that effective leadership is about the basics of guiding a vision, strong values and organisational beliefs. She stresses the leader's task to communicate these and

“keep them ever-present and clear” (Wheatley in Dennard, 1996:133), but still allow employees the freedom to question, discuss and think laterally (Wheatley, 1994:133).

Another major contribution of the chaos theory to management is the participative nature of new sciences management (Wheatley, 1994:64). If employees participate in decision-making, they will also take ownership for the work they are doing and they will feel that they have an emotional investment in their work. Just as reality is what is observed in quantum logic, in the same manner employees will only see a decision as ‘real’ if they have interacted with it and they will only commit once they have participated.

Flower (1993:52) suggests a revolutionary idea for managers who want to motivate their employees: ‘just don’t’. Because of the self-organising ability of systems, employees will make adjustments that would be required from them to prosper. It will thus not be necessary for managers to find ways to drive people, but it is important to provide a suitable environment for them to develop themselves. Interestingly, Flower states that one of the most important factors contributing to this ‘suitable environment’ is for employees to be involved in “satisfying social relationships” (Flower, 1993:52). They must be able to learn, have access to information and be free to choose between a variety of relationships.

Flower (1993:51) and Wheatley (1994:144) mention that the chaos management approach causes many problems for managers. They are afraid to lose control and to work with so little structure. Many MBA students further reported a few years after they have completed their studies, that they “wished they had focused more on people management skills while at school” (Wheatley, 1994:144).

Communication consultants (Gayeski & Majka, 1996:5; McGoon, 1994:13) suggest that communication managers’ role in the chaotic organisation is changing and that it will not be sufficient to merely create effective technical communications such as newsletters or annual reports. They should become involved in establishing effective communication channels to facilitate dialogue, diversity of ideas, and participative decision-making. Communicators should “learn the business and coach management to lead by example - that is the one of the most effective tools around today” (Gayeski & Majka, 1996:6). Interpersonal and management communication skills are becoming increasingly important, and communication managers could assist executives in building their skills so that they can identify issues, provide contexts for information, and interpret possibilities (McGoon, 1994:15; D’Aprix, 1996:112).

Now is the age for communication management

The era for the field of Communication Management to become of strategic importance and for the professionalisation of the field is now - during times of change. In the age of chaos and change the communication managers of organisations will become facilitators and networkers who will be the integrators and interpreters of information - not only within the organisation, but also with publics outside the organisation (Marlow & O'Connor Wilson, 1997:68).

New responsibilities of communicating for the new millennium include: bridging differences, learning and understanding new ways of thinking, communicating within diversity, managing conflict, and functioning between different disciplines (Marlow & O'Connor Wilson, 1997:77). Communication managers should also move away from asking, 'How do we get the message across to the greatest amount of people with the most success?' to rather asking, 'How do we facilitate dialogue and participation in creating the vision and culture for change?'

An organisation's success depends on the organisation's ability to process information of appropriate richness to reduce uncertainty and clarify ambiguity that occurs during times of turbulence and change (Spicer, 1997:241). If communication can be the strange attractor, or if constant change can be communicated as a strange attractor, this would imply that it becomes a core value. In other words, the culture need not be changed - reengineering can occur without concentrating on culture change. One of the core values of the organisation should be communicated as one of constant change.

In terms of the rapid changes in South African organisations, the role of the communication manager can be questioned: are South African communication managers trained and equipped to manage all these changes within the chaotic organisation? Are communication managers only providing information or are they truly facilitating the growth to knowledge and wisdom and ultimately a consciousness of higher development? What are their roles in the change management process: are they change agents, facilitators, or merely technicians following the orders of management to inform and communicate what management thinks employees need?

Heinz Pagels, a physicist, is "convinced that the nations and people who master the new sciences of complexity will become the economic, cultural, and political superpowers of the next century" (Youngblood, 1997:33). In the new millennium

of change and chaos, communication management can contribute greatly to organisations in achieving this.

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