Applied

UNDERSTANDING CONTEXTUAL INTELLIGENCE: A CRITICAL COMPETENCY FOR TODAY'S LEADERS

Matthew R. Kutz[1] *& Anita Bamford-Wade*[2]

1. College of Education and Human Development, Bowling Green State University, USA
2. Auckland University of Technology, NZL

Today's leadership landscape is dynamic and challenging. Earlier theories and assumptions appear to be inadequate and over simplistic in their ability to flex with the volatility and complexity of organizations which function in a knowledge economy at a local, national and global level. This paper offers a working model of contextual intelligence for practitioners, which extends the non-Newtonian-based leadership paradigms by integrating the principles of tacit knowledge, synchronicity and time orientation: essential competencies for today's leaders.

INTRODUCTION

Basic assumptions of how to lead and what leadership entails are being challenged more than ever before. It has always been difficult to define leadership succinctly. As the context of leadership expands and becomes more complex that difficulty is increasing. Traditional theories and models of leadership are becoming progressively insufficient because they "suffer" from what Tetenbaum and Laurence (2011) describe as a sole focus on either the leader, the follower (usually in a one-on-one relationship), or the context. Consequently, few leadership theories or models adequately address the complexity and uncertainty of today's leadership landscape. Furthermore, they do not account for the volatile and dynamic contexts that are created by the interactions between the leader, follower, and the outcomes of their interactions and decisions (e.g., their environment).

Fleishman and colleagues (1991) attempted to describe a functional interpretation of the different leadership taxonomies presented in the literature and identified over 65 different taxonomies. Winston and Patterson (2006) delineated a holistic definition of leadership and presented a nearly 1000-word definition incorporating over 93 different dimensions. The sheer number of leadership theories and dimensions makes it difficult for leaders to decide how to apply leadership theories, which ones to apply, and under

what circumstances to apply them. Many leadership models have been reported to be inadequate and overly simplistic when it comes to addressing the volatility and complexity of leadership in today's organizations (Tetenbaum & Laurence, 2011).

To address complexity and better understand contemporary leadership landscape, many practitioners and theorists have introduced leadership concepts that are based on non-Newtonian frameworks. For example, chaos theory (Burns, 2002; Wheatley, 2006; Tetenbaum & Laurence, 2011), complexity theory (Lewin, 1999; Schneider & Somers, 2006; Uhl-Bien, Marion, & McKelvey, 2007), adaptive capacity (Heifetz, 1994; Vincent, 2007), interactional psychology (Mischel, 1977) and systems thinking (Senge, 1990; Gharajedaghi, 2011) have been introduced as necessary paradigms from which to understand organizations and leadership. These frameworks provide an important perspective necessary to navigate context-rich organizations. However, they fall short in providing a usable model (e.g., measurable competencies) for practitioners. Models that incorporate complexity and chaos theories must also reframe how experience (tacit-based knowledge) is used and provide competencies in which to inform behavior and proficiency.

Therefore, the purpose of this paper is to provide a model of contextual intelligence that integrates non-Newtonian perspectives with traditional leadership competencies that also addresses the leader-follower-context nexus. Contextual intelligence extends non-Newtonian-based leadership paradigms by integrating the principles of tacit knowledge, synchronicity, and time orientation that offer the practitioner outcomes that can immediately impact performance. Outcomes associated with the practice of contextual intelligence include:

- Explaining why there may be success in one environment and failure in another;
- Reducing conflict and increasing awareness of the values and ideas of self and others;
- Increased ability to effectively influence others;
- Responding to and profiting from unexpected or complicated change;
- Increasing team buy-in;
- Accelerating ability to contribute in a new context, and;
- Appreciating external and internal influences.

NON-NEWTONIAN PARADIGMS

Recently, scholars and practitioners have introduced non-Newtonian-based leadership paradigms as a way to understand leadership in what Johanson (2009) dubbed a VUCA world (i.e., volatile, uncertain, complex, and ambiguous). The primary tenant of a Newtonian-based paradigm rests in the notion of law-abiding, stable, and predictable outcomes. Newtonian-based paradigms help put people at ease because it offers a level of predictability and the semblance of stability. Historically, organizational and leadership behavior have been based on a Newtonian understanding that things work based on predictable patterns. While certain Newtonian-based laws are well established in our physical world (e.g., gravity), the advent of quantum physics and recent discoveries on how biological systems function, calls into question many of the basic presuppositions about concepts like equilibrium, homeostasis, and predictability. Two such non-Newtonian-based paradigms are chaos theory and complexity theory (e.g., Wheatly, 2006; Uhl-Bein, 2007).

Chaos Theory

Chaos theory offers an alternative to Newton's mechanistic and linear view of the physical world with the supposition that not all processes can be determined. The problem with seeing all of life as linear is that it blinds individuals to "life's processes" (Wheatley, 2006), which are those unanticipated formative events that occur throughout one's life. Chaos theory is an unfortunate casualty of its name—it implies randomness and disorganization. On the contrary, chaos theory yields a very complex and non-random pattern. What is often labeled chaos is just patterns that haven't been recognized (Resnicow & Vaughan, 2006). The irony of Chaos theory is that while it is non-linear and unpredictable it is patterned. To better grasp Chaos theory it is important to explore additional concepts such as strange attractors, phase transition, and double-loop learning.

Strange attractors are the unidentified influencers of patterned movement (Burns, 2002). It refers to an unknown phenomenon that is continually pulling matter toward itself (Wilson, 1998): implying that in spite of an apparent randomness or lack of repetition there is something unexplained or nebulous ordering movement or at least causing convergence of unrelated phenomenon (the presence of strange attractors helps conceptualize *synchronicity*—discussed later).

Other chaos-based concepts include "phase transition"—which is a place or zone of existence somewhere between stability and predictability and anarchy and ran-

domness (Stacey, 1996). Phase transition is the unstable "state" between other known or stable states; for example, the phase between ice and liquid water or liquid water and steam (Grobman, 2005). Organizationally, phase transition is unsettling and uncomfortable and can be understood as a temporarily moving into a stage of nebulous identity without fully knowing what new identity the transition will bring. For example, bureaucratic organizations wishing to become a learning organization will undergo phase transition before they realize their goal (Lusch, Liu, & Chen, 2010).

One final concept is "double-loop" or adaptive learning. Double-loop learning allows one to assess how well one is performing in relation to the environmental context and modify their behavior based on that assessment (Burns, 2002: 46). Double-loop learning includes adjusting behavior in real time based on the observation of what is happening in a given situation. It is akin to what Richard Paul (1995) describes as thinking about your thinking, while you're thinking, in order to change your thinking. Double-loop learning requires one to be acutely aware of and tuned into sudden changes in the overall environment. In short, double-loop learning engages in the process of diagnosing contextual variables to fix or address the core or root issue as opposed to merely bandaging symptoms. The concept of double-loop learning is fundamental to demonstrating contextual intelligence.

Complexity Theory

Complexity theory offers insights into organizational leadership in light of the transition from bureaucratic or industrial-driven organizations to organizations that are organic and knowledge-driven (Uhl-Bien *et al.*, 2007). This theory is framed around the dynamic ability of adaptive systems. Rooted in the understanding of biological (i.e., organic) systems, complexity theory advances the notion of adaptability. Heifetz's (1994) concept of *adaptive capacity* is one of the main drivers behind the popularity of complexity theory, which is an essential component of understanding contextual intelligence. Complexity theory distinguishes between systems that are merely complex to those that are complicated (Uhl-Bien *et al.*, 2007). *Complicated* systems are closed and can be described in reference to the number of parts (e.g., stakeholders) it has internally and can be understood by breaking a system down to its smallest component parts and then studying those parts. As a closed system, a complicated context has no need to consider external variables. *A complex system* also has many parts, but is open and requires understanding all the parts relative to the context including external influences. Complex systems cannot be understood by only studying the smallest component parts of the system; they require both an internal and external analysis as

a whole. Furthermore, complex systems are highly sensitive to "small perturbations" (Lorenz, 1993). Complexity occurs as a result of different (or seemingly unrelated) constituents "bump[ing] into one another" which causes a chain reaction of unpredictable and nonlinear change (Uhl-Bien *et al.*, 2007: 302). To make this more difficult any resulting change usually occurs in unexpected or unanticipated places (Uhl-Bien *et al.*, 2007). Unfortunately, because history cannot be revisited, the trajectory of that change cannot be altered (Dooley, 1996).

An important implication of the non-Newtonian paradigm is the understanding of leadership as a behavior and response of everyone throughout the organization and not only relegated to those in executive-level or hierarchal positions.

The implications of non-Newtonian paradigms (e.g., chaos and complexity) on contextual intelligence are far reaching as they refine how hierarchal and organized systems are perceived both internally by stakeholders and externally by interested onlookers. That change includes how one deals with and understands the past, anticipates the future, and places a higher priority on the present. It also has a profound impact on who can be a leader, how leadership is measured, and where it takes place.

TACIT-BASED LEARNING

The actions of a skillful leader are largely based on tacit knowledge (Argyris, 1999). Tacit knowledge is often thought of as intuition or wisdom. Tacit knowledge is action oriented, typically acquired without direct or intentional help from others, and enables one to achieve their goals (Sternberg *et al.*, 1995). Tacit knowledge is traditionally the domain of expert-level behavior (Wagner, 1987). Tacit knowledge is what people know to be true about the actions and attitudes of self and others (e.g., affective behaviors), but cannot articulate how it was learned. Consequently, tacit knowledge is difficult to teach, which propagated the axiom, "some things are better caught than taught" and is partly why it has been the domain of experts.

Tacit knowledge comes from two sources: experience and analogical reasoning (Hatsopoulos & Hatsopoulos, 1999). In its simplest form the most plentiful source of tacit knowledge is from trial-and-error experiences (Hatsopoulos & Hatsopoulos, 1999). To expedite the development of tacit knowledge decisions should be made based on associations between attempted actions and the resulting outcomes, whether positive or negative. Experience only enhances performance when it becomes embedded as tacit knowledge. The embedding (or formation) of tacit knowledge is only

possible when one is able to analyze their actions and decisions in light of real outcomes (Ericsson, Prietula, & Cokely, 2007).

Analogical reasoning is a significant source of tacit knowledge (Hatsopoulos & Hatsopoulos, 1999). Analogical reasoning has the capacity to compensate for a lack of experience or experiences. Analogical reasoning (or inference) is the comparing of apparent similarities between different situations. By using analogical inference an individual can "recognize" a trend in a given context even if they have never been in that context before. This is possible because they are making an analogy from an unrelated experience in their past and applying it to the present. The irony of analogical inference is that it requires making judgments in novel and new situations based on experiences from unrelated situations. Analogical inference is the next best thing to actually having been there. Obviously, the more experiences one has increases one's capacity to make accurate analogies. Therefore, it is possible to improve one's ability to make analogical inferences. The best way to facilitate analogical reasoning ability is by increasing exposure to new and different phenomenon and experiences. Johansen (2009) has called this phenomenon "immersion learning." Immersion learning, not only facilitates one's ability to make analogical inferences, but it also adds to one's reservoir of experiences, which in turn contributes to intuition and wisdom (i.e., tacit knowledge).

Polanyi (1976) discusses tacit knowledge as a core component of wisdom. Wisdom is predicated on the application of tacit knowledge, rooted in extracting and organizing one's experiences. Wisdom has been defined as "the application of tacit knowledge as mediated by values" (Sternberg, 1995: 637). Achieving these values requires a balance between the interests of self and stakeholders relative to different environmental contexts. Therefore, wisdom requires the correct application of different experiences with respect to inter–, intra-, and extra-personal values in a complex milieu of relationships.

Blass and Ferris (2007) identified two types of experience necessary to understand one's context. The first type of experience they name "vicarious;" the second type of experience they call "firsthand." Vicarious experience is a tacit-based understanding of how an individual is impacted by the decisions, behaviors, and actions of others. Firsthand experiences are those explicit forms of learning (also called declarative knowledge) that are directly related to the individuals' demonstrated behaviors and the ensuing outcomes, and refer to facts and theories that can be articulated or transferred to others (Grant, 1996). While it is always necessary to have firsthand experiences, explicit knowledge alone is no longer sufficient (Lankau & Scandura, 2002). In ambiguous envi-

ronments, it is necessary to view one relative to their relationships. Understanding how one relates to others within rapidly changing contexts is necessary to transition effectively as a leader or influencer in contexts that are uncertain, complex, and ambiguous. In uncertain and ambiguous contexts learning from vicarious experiences is critical to performing well and shortens the "learning curve." Therefore, leaders should develop skills that facilitate wisdom from vicarious experiences using analogical reasoning.

The scope of explicit (declarative) knowledge is restricted to the context in which it was learned. Unlike explicit knowledge, tacit knowledge can be applied in any situation, at any time, in any place—there is no restriction to when, where, or how it is applied (Wagner, 1987). Applying Wagner's framework implies that there is no situation where what was learned by an individual via tacit knowledge (e.g., their experience) cannot or should not be applied. This contributes to our understanding of synchronicity and analogical reasoning.

SYNCHRONICITY AND INNOVATION

Jung (1973) introduced the concept of synchronicity and described it as two [or more] simultaneous events that occur coincidentally; that is, they are not causally related but result in a meaningful connection. Synchronicity is the idea that certain events regardless of the context and time in which they occurred are in some way related—even though the relationship between those events is not obvious or apparent. Senge and colleagues (2005) suggest that some of the best opportunities for significant change arise through synchronous processes that, although not necessarily connected, give rise to 'meaningful coincidence' and synergies (p. 159). Capitalizing on this "synergy" between apparently unrelated experiences may help to provide a tacit-based framework whereby ideas are generated more easily and performance ceilings can be elevated. Tacit-based learning and synchronicity have a reciprocal (or symbiotic) relationship and can be a catalyst for developing a framework of leadership that responds in a fast-paced, change oriented, and dynamic leadership context.

Innovative and creative ideas, consistently great performance, knowledge management, and their requisite behaviors are at an all-time premium. Leaders and practitioners alike need to reflect on: "what are you doing when you have your best ideas;" the ideas that actually solve problems, the ideas that are truly creative? Many would answer "in the shower," "mowing the lawn," "driving home," or some other seemingly unrelated activity. Researchers and practitioners have long understood that the key to innovation lies in the much-maligned cliché of "thinking outside the box." This proverbial "box" is context—the predefined parameters that contain a finite number of spe-

cialized experiences. Often times we relegate our experiences and the things we learn from those experiences—to the boxes (or context)—in which we learned them. When drawing from experiences outside of the current context there tends to be an increase in useful or novel ideas. Applying analogical inference and learning from synchronous experiences is necessary to accelerate tacit knowledge.

Drucker (1985) identified incongruity, changes in perception, mood and meaning, and new knowledge as sources of innovation. These sources have specific application in developing tacit knowledge and facilitates being alert to synchronicity. *Incongruity* as a source for innovation requires seeing the world as it actually is as opposed to what others presume it to be (Drucker, 1985). Therefore, the only ways to recognize incongruity is to have an accurate grasp of other's perceptions relative to present-day reality.

Recognizing changes in *perception, mood and meaning*, requires an acute sense of what is happening around you and what is changing (and why) in the behaviors and attitudes of others. Both of these innovation sources requires an acute sense of how others interact and behave. It requires knowing how to pick the people who end up surrounding you, which Drucker (2001) describes as being one of the most consequential decisions leaders make. Knowing how to choose the right people to surround you requires a well-developed sense of context. Therefore, it is no surprise that having adequate people skills has been found to be one of the most important factors in successfully diagnosing one's context (Kutz, 2010a).

The third innovation source *new knowledge* is not isolated to a single discovery (Drucker, 1985). Rather, innovation based on "new" knowledge is often the result of convergence (or collisions) of different elements of existing knowledge. In other words, knowledge gained from combining experiences that are seemingly unrelated (e.g., synchronous or vicarious) creates a nexus effect or a brand-new experience that facilitates a new behavior. Taking Drucker's ideas one step further, the incubator for innovation seems to lie, at least in part, in the ability to relate or connect apparently unrelated contexts, ideas, and people. This notion lays an important foundation for understanding how synchronicity, the use of vicarious experience, or analogic inference enhances the performance of the leader.

DIFFERENT ORIENTATIONS TO TIME

Time orientation is a critical success factor in leadership and a driving force behind performance in organizations (Thoms & Greenberger, 1995). Time orientation is the frame of mind a leader holds relative to the past, the present, and the future. There is a significant body of literature that stresses the importance of time orientation as it relates to the behavior of leaders (Bird, 1992; Bluedorn & Denhardt, 1988; Bluedorn, Kaufman, & Lane, 1992; Das, 1986, 1987, 1991, 1993; Jaques, 1982; McGrath & Rotchford, 1983; Thoms & Greenberger, 1995). In Thoms and Greenberger's (1995) analysis of the literature on time orientation, they identified 16 popular leadership theories that either implicitly or explicitly involved an orientation requiring an awareness of the past, present, or future. The general consensus of this body of literature implies that leaders use the past, present, and future differently in their decision making. Kutz (2008a) takes this a step further by stating that it is necessary for all leaders—in any context or at any level—to *simultaneously* consider the past, the present, and the future; a concept he calls "3D-thinking" (Kutz, 2011: 10). Applying the 3D-thinking model of contextual intelligence requires all decisions and actions be based on hindsight (H), insight (I), and foresight (F), and can be expressed in the equation H+F=I. Hindsight and foresight equally contribute to the insight that is needed to inform real-time actions and behaviors.

Previous relationships and experiences influence and even shape present day behaviors (Thoms & Greenberger, 1995). Often times the influence of the past is a passive process. Hindsight is the deliberate recalling of experiences and learned lessons (some of which may be completely unrelated to the current context) that can be applied to the current context. As hindsight is practiced and becomes more developed it becomes more intuitive though no less deliberate. A future orientation represents the leader's behavior that has a direct and purposeful impact on their future or the future of others (Thoms & Greenberger, 1995). Foresight is anticipation of (or looking ahead to) how decisions and actions will effect the preferred future. Foresight takes into account unknown and unpredictable patterns or what cannot be known by conventional wisdom. A present orientation (i.e., insight) requires responding to present day situations in real time and is understood to have short-term or transient outcomes. Therefore, insight is the convergence of hindsight and foresight in the present moment that informs behavior.

Thoms and Greenberger (1995) are clear in their belief that contemporary leadership theories and models are missing the proper treatment of time orientation. Contextual intelligence offers a background for explicit leadership behaviors based in an intentional time oriented framework (e.g., 3D thinking).

Thoms and Greenberger (1995) suggest that there are "temporal skills" that can be learned which will facilitate one's orientation to time. Typically, leaders prefer a specific orientation based on their strengths. For example, a certain leader may be biased toward the past (hindsight) because of a long history of success and therefore base many of their decisions on what worked in the past. This preference for a specific or dominant time orientation is called "temporal alignment" (Thoms & Greenberger, 1995, p.277). To overcome biases for a specific time orientation one needs to learn how to synchronously align all three time orientations. The synchronous alignment if hindsight, insight, and foresight can be facilitated by time warping and time chunking.

Time warping requires the cognitive manipulation of the past and future by making them seem closer to the present (Thoms & Greenberger, 1995). In essence it requires using one's imagination to skip to some point in the future—effectively "skipping past" the stressful waiting period between the present and the anticipated future. This concept is similar to something theoretical physicists call a "wormhole" (Wheeler, 1957). A wormhole is a theoretical compression of space and time that end up providing a "shortcut" through time. One way to illustrate this in organizational leadership is helping followers envision or picture what the future can be like. Getting others to see a desired end-state helps them make decisions today that move them toward that desired future.

Time chunking requires the grouping together of segments (or chunks) of time, for example referring to segments of time in hours, days, months, etc. This is a skill that can help one manage future events today. In other words, one can create the future by placing a higher priority or importance on a chunk of time. For example, making the statement "we have four weeks to complete this project," effectively chunks time together making that segment of more importance or of higher priority, which effectively reroutes the trajectory of other's effort so that the project's goals are accomplished. The implication of learning these temporal skills for contextual intelligence is that it is possible to learn 3D thinking.

INTELLIGENCE, ADAPTABILITY, AND SOCIAL LEADERSHIP

Educational and cognitive scholars such as Gardner (1983) and Sternberg (1988) have claimed that intelligence cannot be accurately assessed by scholastic testing or academic prowess. They argue that intelligence rests on an individual's capacity to diagnose and respond to their environment. Intelligence is the ability of a person to respond to new events and situations successfully and includes the capacity

to learn from past experience (Gardner, 1993). Sternberg (1988) emphasized that any true valuation of intelligence must include contextual indicators. In other words, for one to be truly intelligent, behavior must be considered relative to the specific situation in which influence is desired. Ultimately, intelligence is not a universal trait that is measured or appreciated the same everywhere (Gardner, 1983). By applying this intelligence framework success would no longer be dependent upon pre-defined or standardized definitions, rather fluid and dynamic values. Therefore, recognizing what those values are and how and when those values change becomes the only reliable indicator of a sustainable influence.

In a VUCA world, it is critically important that a leader not only knows *how to* but also knows *what to do* to be successful. Brown, Gould, and Foster (2005) and Hayes and Brown (2004) indicate that understanding the context in which one operates requires knowing what works within that specific situation, furthermore, in order to know what works in each situation requires operational knowledge as opposed to purely application-based knowledge. In their appraisal application-based knowledge is the same as explicit or declarative knowledge. However, operational knowledge requires a keen sense of contextual awareness, which transcends application of technical skill and technique (Hayes & Brown, 2004). Heifetz (1994) has observed that "management" is often required when problems are of a technical nature. Solving these types of problems requires the implementation of application-based knowledge (i.e., explicit) by implementing existing policies and procedures. These types of technical problems require little innovation, creativity, or contextual intelligence. On the other hand "leadership" is required when problems are novel or have not been experienced before and is a way of thinking that requires operational knowledge (i.e., tacit) and organizes solutions from synchronous, vicarious, or analogical experiences. Therefore, intelligence is predicated on recognizing and assimilating synchronous experiences and the application of operational knowledge. Practicing contextually intelligent behavior is one way to accelerate experience (Kutz, 2011: 8). Diagnosing the context (when it is understood as volatile and dynamic) is an important piece of practicing evidence-based leadership (Kutz, 2010b: 87).

Adaptability And Contextual Intelligence

Adaptability is the necessary changing of behavior to meet situational demands (Blass & Ferris, 2007). *Adaptive capacity* is one of the most important predictors of performance across a diversity of industries (Chan, 2000; LePine *et al.*, 2000; Pulakos *et al.*, 2000). Adaptive capacity is a core competency of leaders in contexts that are rapidly changing, uncertain, and complex (Zaccaro & Banks, 2004; Blass & Ferris, 2007). In

contexts where turbulence is continual, individuals must be imaginative, creative, continuous learners (Vaill, 1996). Adaptability is no longer a "nicety or coping mechanism" rather an imperative (Hall, 2002; Calarco & Gurvis, 2006). Adaptive capacity requires a unique framework from which the individual assesses their environment and organizes information. This unique framework requires that the individual demonstrate the ability to welcome and understand the change that is happening, embrace that change as necessary, and modify and adjust their behavior in real time based on that change.

As organizations continue to transition from primarily bureaucratic and transactional groups to organic networks the necessity for individuals to become contextually intelligent increases. Systems (or networks) that continue to evaluate performance based on technical skill, job descriptions, or specialties will suffer (Rousseau, 1997). However, systems that evaluate performance based on the ability to navigate complexity, uncertainty, and ambiguity will ultimately prove to be the most effective.

In turbulent environments, a fundamental element of performance depends on the individual's ability to monitor behavioral cues (Blass & Ferris, 2007). The monitoring of these "behavioral cues" consists of awareness to internal cues (i.e., self-behaviors) and external cues (i.e., behaviors of others). In ambiguous environments awareness of these behavioral cues can be used by the individual to adapt and respond to their environment. Unfortunately, appropriate adaptation cannot be scripted (Blass & Ferris, 2007). Therefore, it is necessary that individuals be able to proactively adapt and appropriately respond. The contextually intelligent person can identify the very subtle disruptions in one's context. Ferris et al (2005) recognize such a person as one who can assert influence on others in a manner that is measured and appropriate for the situation.

Social Process of Leadership

To date much (if not most) of leadership development has focused on leader specific skills, characteristics, and behaviors (Schyns *et al.*, 2011). This is particularly problematic in that it creates a distinction between those who have formal organizational roles (i.e., manager or leader) and other participants in the leadership process. Day (2001), stated that leadership is a "social process" that transcends the skills or abilities of an individual. As a social process leadership focuses on the broader relational and social contexts in which leadership is enacted (Day, 2001; Schyns *et al.*, 2011). With respect to the social process Bolden and Gosling (2006) stressed that leadership moves from an individualistic ideal to a more collective ideal. In other words, to understand lead-

ership correctly, it must be evaluated and considered in light of the context in which leadership takes place (Schyns *et al.*, 2011).

Context is a reference to the nature of interactions and interdependencies among and between agents (e.g., people, ideas, values, experiences, cultures, etc.), political alliances, organizations, religious alignment, social contexts, and private context. Contextual intelligence is the awareness of the interactions between and movement among these agents which, ultimately informs behavior in a socially complex environment. This environment must be considered in light of an unpredictable future, but where tradition, precedent, and history matter.

Most leadership literature that includes contextual factors confines leadership to learning or functioning in one specific context. It was Fiedler (1967) who originally observed that leadership does not take place in a vacuum, which led to later research emphasizing that the leader and context reciprocally influence each other (Endler & Magnusson, 1976). When only a single context is the focus of performance the risk of becoming myopic increases. Contemporary leadership models necessarily should include the dynamic nature of contexts. Which includes at least two facets: 1) larger contexts have dynamic sub-contexts, and 2) additional contexts exist. In other words, within a given context there is an internal shifting in the variables and factors that make the context what it is; and there are contexts (sometimes unrelated) that influence other contexts. Contexts are like planets; they can either align, collide, or influence each other with their gravitational pull. It is one thing to learn the specific behaviors, attitudes and values of a context and thrive within it. It is a completely other thing to transition between contexts across multiple structures, which is typically the case for today's leaders. Contextual intelligence offers a framework to account for both these aspects of complexity within the construct of "context."

Logmen (2008) introduced the concept of "contextual flexibility" by describing the process of answering the what, why, when, where, and who questions of stakeholders. He supposed that solutions are dependent upon place and time and conscious leaders understand the differences between the actions of individual's and implies that the context and not the leader's knowledge or background should define their actions. In other words, it is understanding a given context and not experience that should be the antecedent to action. Understanding the context does not replace experience per se, experience is still useful for analogical reasoning. Critical to understanding the concept of contextual flexibility is being able to define context. Context is the background of an event (Kutz, 2008a); it consists of the weaving together of several variables creating a web-like pattern of relationships (Kutz,

2011). Experience is used as a secondary influence in decision-making and context becomes the focus.

In the static and predictable marketplace problems are well defined, formulated by others, inherently contain relevant information, have one correct answer, and are unrelated to experiences outside of the situation where the problem manifested. However, in today's dynamic ecosystem problems are poorly defined, are missing relevant information, have multiple possibilities for solutions, and are influenced by multiple experiences. Therefore, solving problems in today's organizational climate requires contextual intelligence.

A REVIEW AND MODEL OF CONTEXTUAL INTELLIGENCE

Sternberg (1988, 1995) used the term "contextual intelligence" as synonym for his concept of *practical intelligence*, a subtheme within his theory of Triarchic Intelligence. He described it as the ability to apply intelligence practically, which includes considering social, cultural, and historical backgrounds (Sternberg, 1988). Individuals who have a high level of contextual intelligence easily adapt to their surroundings, can fit into new surroundings easily, and can fix their surroundings when they perceive it to be necessary (Sternberg, 1988). Since that time the term contextual intelligence has been used theoretically by different practitioners and researchers in disciplines, such as nursing, psychology, business, education, medicine, and politics (Bamford-Wade, 2011; Brown, Gould, & Foster, 2005; Hayes & Brown, 2004; Knight, Moore, & Coperthwaite, 1997; Mayo, 2008; Nye, 2008; Smart, 2005; Scouba, 2011; Terenzini, 1993;) and while implicitly similar in meaning each was heavily nuanced in their own explicit application.

Terenzini (1993) discussed the concept of contextual intelligence as it applies to institutional research. However, his insights and applications go well beyond these boundaries. He outlined three tiers of "organizational intelligence," the third tier and "crowning form of organizational intelligence" was contextual intelligence. Table 1 is a list of the factors that contribute to what a given context consists of (i.e., framers of context) that are needed to understand before one can claim to be contextually intelligent.

Kutz (2008a) describes the integration of these factors as the "contextual ethos," which is constantly changing and revolving (p. 21). Terenzini (1993) implies that awareness of many of these conditions is a prerequisite of contextual intelligence. Therefore, without an understanding the contextual ethos, one cannot fully behave in a contextually intelligent manner.

General or Society's culture	Governance
The organization's or context's past (i.e., history and philosophical evolution)	The paradigms that inform present day decisions
Organizational culture	Key players in the organization
Political structure and hierarchy	Values and attitudes of other stakeholders
The decision-making process	Perspectives of other stakeholders
Idiosyncratic customs	Knowledge of how the sociopolitical environment is influencing the current situation

Table 1 *Factors that contribute to a contextual ethos. Compiled from: Terenzini, 1993; Kutz, 2008, 2010, 2011; Knight, Moore, & Coperthwaite, 1997.*

Empirical research on contextual intelligence emerged in 2008, laying a foundation for integration of the concepts of *context* and *intelligence* resulting in a conceptual model for contextual intelligence (Kutz, 2008b). Kutz's (2008*a,b*) empirical description of contextual intelligence delineated 12 empirically-based behaviors (Table 2), which were organized *a priori* by three dimensions of time (i.e., hindsight, insight, and foresight). Contextual intelligence requires that the 12 behaviors be practiced simultaneously or integrated as a single cluster of behaviors. The 12 behaviors are interdependent and do not constitute contextually intelligent behavior if isolated or demonstrated independent of 3D Thinking. In other words these 12 behaviors have a synergistic effect on each other and with the addition of 3D Thinking become greater than the sum of their parts.

Kutz (2008b) reported that contextual intelligence requires "an intuitive grasp of relevant past events, acute awareness of present contextual variables, and awareness of the preferred future" (p. 18). The contextually intelligent person is one who "appropriately interprets and reacts to changing and volatile surroundings" (Kutz, 2010a: 271) and describes it as:

> *the ability to recognize, assess, and assimilate several external and internal variables inherent in a given environment or circumstance. Simply stated, contextual intelligence is the ability to interpret and appropriately react to changing surroundings… [and] is a skill that separates many leaders from non-leaders… [and] depends on the correct assessment of people.* (Kutz, 2010b: 90-91).

Critical to Kutz's description of contextual intelligence is the understanding that it also includes the ease of movement between different contexts.

Behavior	Description	Question to ask	How to accelerate the acquisition of the behavior
Future-minded	Having a forward-looking mentality and sense of direction and concern for where to be in the future;	What are others doing that is leading edge? What can I learn from them?	Read widely from an international perspective to be well informed. Dream of possibilities / potential developments always keeping your eyes on the horizon. Develop an international network.
Influencer	Uses interpersonal skills and different types of power to non-coercively affect the actions and decisions of others;	How do I know that my influence / input has made a difference to the status quo? Write down some examples.	Look for opportunities to practice your interpersonal skills and different types of power to influence. Start with small goals to increase your confidence. Set your goals.
Mission minded	Communicates how the individual performance of others affects how and if the mission is being accomplished;	How familiar am I with the mission of my organization. Do I role model the mission by my behavior?	Look for mentors in your organization who exhibit the values of the mission. What makes them stand out? Practice their best qualities until they become second nature to you
Communitarian	Expresses concern about social trends, issues, and assists in social and community activities	Do I have a sense of social justice? Am I community minded?	Become involved in an outreach. Ask a friend to join you
Culturally sensitive	Works to provide opportunities for diverse members to interact in non-discriminatory manner	How inclusive am I of other cultures? Do I believe that difference equates to richness?	Look at who you interact with at work or in your neighborhood. Be interested in their different customs and practices. Increase you general knowledge so that you are able to be culturally appropriate when in their presence.
Multicultural leadership	Can influence the behaviors and attitudes of ethnically diverse people or groups;	How well do I understand different perspectives? Do I tolerate or enjoy difference	When leading or forming teams ensure the membership includes cultures other than your own.
Diagnoses context	Knows how to appropriately interpret and react to shifts or changes in one's surroundings;	How aware am I of my context. Am I sensitive and adaptive to change?	Check out your interpretation of a context with a colleague

Behavior	Description	Question to ask	How to accelerate the acquisition of the behavior
Change agent	Raises difficult and challenging questions that others may perceive as a threat to the status quo;	What are my motives for asking challenging questions. Does my question advance the cause?	When initiating change pick low hanging fruit first (small quality improvements) and build up your confidence as a change agent and gain credibility / trust with those you work with
Intentional leadership	Is aware and proactive concerning their own strengths and weaknesses and has delineated goals for achieving personal best and influencing others;	What is my leadership style? What are my short and long term career plans?	When forming a leadership team make sure you select people who complement your areas of weakness. This way you will build a strong team
Critical thinker	Makes connections, integrates, and makes practical application of different actions, opinions, outcomes, and information; and	Am I able to work with the strength of diversity when processing, connecting and integrating information / practical applications?	Relationship building is critical to connecting with the team. Ask for feedback to check out that what was intended was what actually happened.
Consensus builder	Convinces other people to see the common good or a different point of view for the sake of the organizational mission or values	What is it about the values that will win hearts and minds?	Practice painting the big picture in such a way that others are enthused and what to contribute / be part of the plan
Future-minded	Having a forward-looking mentality and sense of direction and concern for where to be in the future	What kind of vision do I have? What knowledge and skills do I need to acquire to see this vision through?	Develop resilience as sustainable change can be scary for some and you need to be able to navigate the territory and bring others with you.

Table 2 *Twelve Empirically Based Behaviors of Contextual Intelligence. Adapted from Kutz, 2008.*

Recently, others have begun to integrate this notion of contextual intelligence into their philosophy of practice. For example, Bamford-Wade (2011) cited Kutz's description of contextual intelligence as a core competency for nurse leaders. Wiley Souba (2011), Dean of Dartmouth Medical School, sites Kutz's definition of contextual intelligence as a prerequisite of the "prepared mind" and is the driver for "knowing" (p. 61). Furthermore, Aarnoudse *et al*. (2011) states:

> *In order to stay alive and relevant within a complex and dynamic context, our organizations have to embrace reading, noticing and making sense of complex dynamics and changes that affect their ability to do the work and learn effectively. It is, however, not sufficient for an organization to understand its context... The challenge for organizations' is to develop and identify processes for reading, noticing and making sense of the context in its full complexity and wholeness. We have to develop abilities that will enable us to engage with the context meaningfully—we have to develop what Kutz (2008b) calls 'contextual intelligence'* (p. 155).

Four obstacles to contextually intelligent behavior have been reported. They are pace of change, failure to embrace complexity, learned behavior, and inappropriate orientation to time (Kutz, 2011). The solutions to these obstacles require a new framework based on non-Newtonian paradigms, a new perspective regarding time orientation, and the ability to reframe one's experiences (Kutz, 2011). Therefore, contextual intelligence is a model of leadership based on a non-Newtonian framework, principles of tacit-based learning (e.g., analogic reasoning and vicarious experiences), synchronicity, and time-orientation (e.g., 3D Thinking, time warping, and time chunking) and includes integrating 12 related behaviors; which one framed by a deliberate awareness of the contextual ethos. Figure 1 is depiction of the contextual intelligence model.

STRATEGIES FOR IMPLEMENTING CONTEXTUAL INTELLIGENCE

Brown, Gould and Foster (2005) indicate that aspects of contextual intelligence can be acquired. It is our contention that the acquisition of the 12 contextually intelligent behaviors (Table 2) can be accelerated. Furthermore, experience and related constructs (e.g., tacit knowledge) can be acquired by means other than the accumulation of time, such as vicarious or synchronous experiences. One way to "accelerate" experience is to learn as much about a specific context as possible. It is necessary that one become familiar with both the formal and informal structures within the context where influence is desired. This requires knowing who has the power to

influence decisions within a given context and how that power is used to control the flow of information (Hayes & Brown, 2004). The contextually intelligent individual responds to each and every context as a unique learning experience and goes through a specific, perhaps even predefined, sequence of inquiry with the intent to learn as much about that context so that what is learned can be applied in that context and other contexts later on. Furthermore, the experiences gained in one context is stored in an "experience bank" to be called upon at a later time or place. Therefore, no experience, no matter how seemingly insignificant, is wasted.

Another strategy that has been outlined to help facilitate or speed up the acquisition of contextual intelligence is "learning the language" of the target context. Because the term bilingual limits knowledge to only two languages, we employ the term "co-lingual." Being co-lingual implies that one is aware of and able to respond to the structures, processes, patterns, attitudes, values, and the influences within the context of interest to the individual..

Hayes and Brown (2004) provide a useful analogy by describing how developing contextual intelligence follows a similar process as one would have when preparing to enter a foreign country for the first time. Without knowing the local language, customs, culture, religions, and relevant history of that country it would not matter how intelligent or powerful that person was. In other words, their intelligence, persona, and power would be of no value to them in gaining influence if they were ignorant of the local context.

One of the best ways to become co-lingual is through a tacit phenomenon called immersion. Immersion requires putting oneself into a novel situation where direct practice is the key to gaining new knowledge (Johansen, 2009). Immersion is deliberate. Deliberate learning entails considerable, specific, and sustained efforts to do something you don't do well or can't do at all (Ericsson, Prietula, & Cokely, 2007). It is this type of trial and error learning, which can best shorten the contextual intelligence learning curve. Deliberate immersion should be framed by formal study about relevant and meaningful history (i.e., precedent, tradition, and culture), but is seriously limited if not followed by deliberate immersion experiences.

Creating a contextual map has been identified by Brown, Gould, and Foster (2005) as another way to learn contextual intelligence. Creating a contextual map requires three steps:

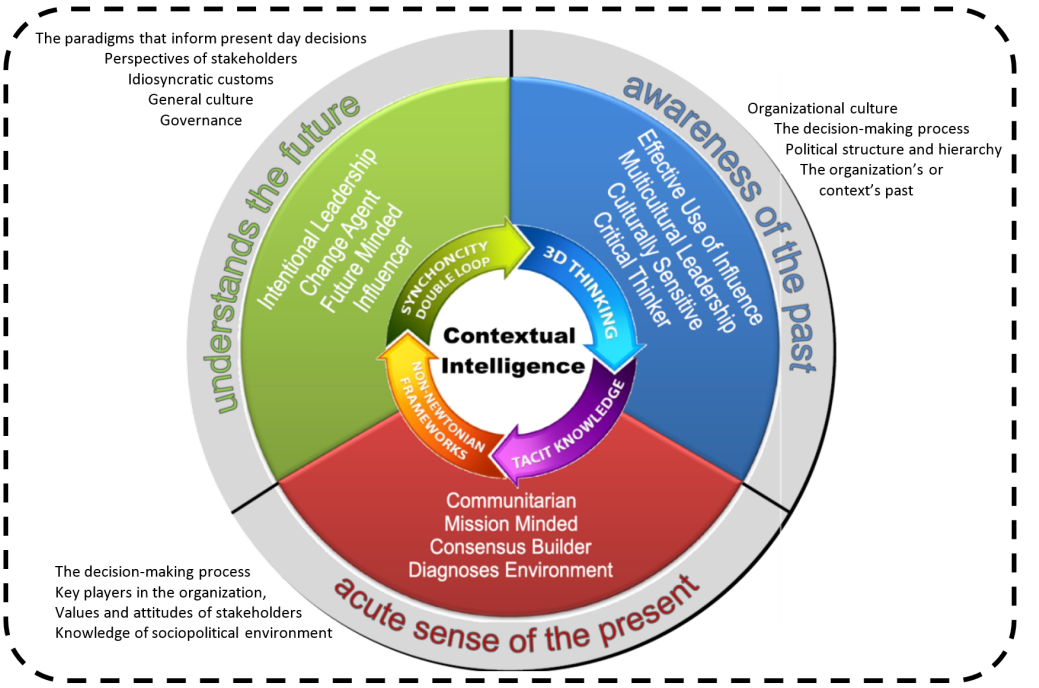

Figure 1 *Contextual Intelligence Model for Organizational Leadership*

1. Identifying the correct factors that determine how success is measured;
2. Identifying available resources in predicting the obstacles within the target context, and;
3. Creating a framework for comparing performance across multiple contexts.

Questions contextually intelligent people ask

Contextually intelligent people have an intuitive grasp of knowing how to ask the right questions, at the right time, to the right people. These questions are usually framed around four general themes: 1) success metrics, 2) resources available, 3) obstacle identification, and 4) synchronous benchmarking. The following Table 3 is a list of what some of those questions could be.

SUMMARY

Osborn, Hunt, and Jauch (2002) state that because of the profoundly different context in which leaders will be required to operate a drastic change in leadership perception is needed. In this complex environment, knowledge is becoming the core commodity; and the rapid production of that knowledge will be fundamental to survival (Bettis & Hitt, 1995; Boisot, 1998). Therefore, the basic as-

Type of Question	Sample Questions
Success Metrics	
	Whose responsibility is this? How does this influence the anticipated or desired future? Who/how is determining what is/is not success?
Resource and obstacle identification	
	Who has the power and how do they control information? Who is supposed to make this decision vs. who actually makes this decision? Who are the recognized leaders? Who are the unrecognized leaders? Who are the followers and who do they follow? What roles need to be accomplished in order for this to get done?
Resource and obstacle identification/Synchronous benchmarking	
	What experiences can I relate to this? Whose experiences can I relate to this? What historical events led to this situation or required decision?

Table 3 *Contextually Intelligent Questions*

sumptions underlying much of what is taught as leadership and organizational practices are entirely out of date. Manville and Ober (2003) declare that it is time for an entirely new conceptual model of leadership. We suggest that CI offers such a model for these complex times.

Contextual intelligence is a leadership model that can be learned and used by any person, in any place, at any time. However, contextual intelligence has specific applications for executives, management-level employees, and organizational leadership and can enhance one's ability to successfully navigate their surroundings including social and organizational contexts. Contextual intelligence is framed around the integration of several factors including a grasp of non-Newtonian paradigms and their application to organizational in social structures, synchronicity and double-loop learning, acquisition and application of tacit-based knowledge, the concept of three-dimensional (3D) thinking (i.e., awareness of the past, acute sense of the present, and understands the future), and the intentional integration of 12 contextually intelligent behaviors (Table 1). This framework is best applied in dynamic, uncertain, and ambiguous contexts. Contexts, which are influenced by a diversity of salient factors that create and shape the environment in which one seeks to implement or sustain influence and relationships.

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Matthew R. Kutz, Ph.D., earned his Ph.D. in Global Leadership with a specialization in Organizational and Corporate Management. He is a 2013 Fulbright Scholar at the Kigali Health Institute, Rwanda, leadership consultant, textbook author, and faculty member at Bowling Green State University in the College of Education and Human Development. His research and professional interests focus on contextual intelligence, leadership development, leadership efficiency, and change initiatives. His email is mkutz@bgsu.edu.

Anita Banford-Wade, D. Nurs., joined AUT University in 2005 as a Senior lecturer and in 2006 was appointed Joint Head of Nursing in the School of Health Care Practice. Prior to commencing at AUT, she was Director of Nursing at Capital and Coast District Health Board Wellington 1997-2005 and Director of Nursing at Mercy Hospital and Health Services Auckland 1988-1995. Before moving into administration, her clinical background was cardio-thoracic intensive care. Anita has a graduate diploma in business (Personnel Management and Employee Relations) from University of Auckland; a Master of Arts (Applied) from Victoria University of Wellington and a professional doctorate in nursing from the University of Technology, Sydney (UTS). Her primary research interests are in action research, leadership and management, and organizational change.