LEADERSHIP AND TRANSFORMATION IN AN ENVIRONMENT OF UNPREDICTABILITY

by

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ABSTRACT

Because the external environment in which organizations operate is changing unpredictably, traditional leadership approaches, regardless of how well executed, work poorly. Effective leadership is focused on finding the solutions for the future that reside collectively in the organization and enabling them to be implemented. This requires accountability at all levels and living with substantial ambiguity. As implemented in the University’s Center for Computing and Information Technology and the Faculty Development Program, this leadership approach has produced significant results. Without additional resources, CCIT expanded campus services 100% to 1000%, depending on the measure. The Faculty Development Program produced an alliance with Lucent Technologies, a major Center, and special state funding of nearly $1 million.
INTRODUCTION

The context for leadership and organizational transformation at the end of the 1990s is one best characterized by a high level of unpredictability. That unpredictability makes traditional strategic planning, traditional management approaches, and traditional leadership models obsolete and unsuccessful. This paper is about a leadership model that works in an environment of unpredictability. Following a brief characterization of this environment, we discuss the leadership model generically. We then summarize its application at the University of Arizona in one major unit (our IT organization) and one new program (faculty development).

WHY UNPREDICTABILITY

Two factors are primarily responsible for the shift to a state of unpredictability: change that is accelerating and complexity that is increasing. These manifest for example in technology, information availability, communication networks, and the geopolitical climate. Technology is in a state of perpetual innovation. In the past, one could purchase a device such as a television, VCR, or an automobile with confidence that its gadgets would remain the most sophisticated for at least a few years. That is no longer the case as devices become cheaper, more capable and more reliable on a daily basis. And, we now have, on our desktop, sophisticated communication devices, not computers. Today, the success of an organization depends on the extent to which it connects and is able to use the network of communications and information available. This network also introduces a level of complexity different from anything we have experienced before. Organizations and countries are all connected to the same information and to each other in real time. What happens in one impacts the others directly and quickly.

In short, for the foreseeable future organizations will be responding to an environment of perpetual change and to a level of complexity that is not comprehensible to any one individual. This alters the fundamental nature of the leadership model and management approach that will produce success.

In the old model when change occurred more incrementally and the future was more predictable, a smart manager could confidently study a problem, find an answer, design the organizational structure to solve the problem, “sell” the solution to the people that worked in the organization, and oversee implementation of the solution. Managers could do strategic planning with a five year time horizon with some confidence that the strategic objectives were appropriate. This structured approach worked and is a major determinant of the success of US corporations. But, it won’t work anymore.

A LEADERSHIP MODEL FOR THE 1990s

The leadership model for the 1990s rests on one important tenet. In an environment of unpredictability--an environment that is changing rapidly and is highly interconnected--the most and the best knowledge about “what to do” resides collectively with the people who work in the organization. Each person in an organization has different parts of the knowledge needed because each person has a different framework, a different set of understandings, and different information from the network of communications and information. Each “sees” different pieces of the future and different parts of the cause of the problem. The role of leadership is to access the information not only in its collective form but in its synergistic form. This leadership model is aimed at finding the “solutions” for the future that reside collectively in the organization. In developing and
implementing this model, we have been influenced greatly by Wheatley (1992), Peters (1987), Block (1993), Senge (1990), and Tapscott (1996).

The model works as a four part process.

- Leadership develops a statement of strategic intent (variously termed, guiding principles, vision) for the organization on which people generally agree.
- Leadership provides opportunities for people to “dialogue” about this intention, deciding on projects that they believe are key to attaining it.
- Leadership then makes certain that these projects are allowed to develop, with the people themselves being accountable for the results.
- Leadership provides the evidence of success and then restates the intention at a higher level.

Four words are key: intention, dialogue, enable, and evidence. Success rests on these four elements proceeding simultaneously. The intention is stated; the organization engages in a dialogue that interprets that intention into action in a host of different ways, many of which are unexpected; the leadership must enable those actions to happen; as things happen, evidence is developed and communicated. Through this process, change becomes an emergent property of the organization rather than something imposed from above. The result is substantially different from and produces substantially better results than if the change elements had been developed and imposed by an individual or a group “at the top.” Such a process, however, requires major shifts in leadership style and in how leadership spends its time.

The four steps are not a sequence nor do they define one set of answers. Rather, lots of parallel processes are ongoing; these processes do not always line up or fit together. They are often based on the passion of persons trying to interpret and implement the intention. “Breakdowns” occur as some people, perhaps some that have been in leadership jobs, lose sight of the initial intention, never make the shift in style, revert to old approaches or can’t assume accountability. Constancy of purpose--maintained primarily by the top leadership--as these “breakdowns” occur--is a key determinant of success.

**Intention**

Leadership must accept responsibility for the statement of strategic intention, although a participatory process in developing it is central to beginning the dialogue. Equally important, the leadership must stay constant with that intent--always referencing it as the change unfolds. This constancy is tested and is difficult to maintain.

**Dialogue**

Dialogue, shaped and directed by leadership, is the vehicle through which change occurs and through which the right actions happen. Dialogue, as first introduced by Bohm (1980) and developed by Senge (1990), is an exchange of ideas, quite distinct from discussion in which someone’s idea wins. In dialogue individuals are willing and able to set aside their assumptions and develop a new meaning in collaboration with others; they are able to reach higher levels of understanding and insight that go beyond the “best” idea of any one individual. Establishing this “culture of dialogue” requires substantial commitment. Perhaps most difficult, leadership must set aside assessments and judgments and fully believe that others are “seeing” things they are not seeing. They must “trust the process.”

**Enabling**
Dialogue, by itself, won’t produce change; the leadership must also be willing to enable the results of the dialogue to happen. Once a team has decided on a direction, the leadership must allow that solution to move forward and be implemented, with the team itself being accountable for results but not afraid of the consequences of failure. To the extent that the interaction between the team and the leadership has been meaningful in dialogue, then surprises are minimal. But, one can not expect accountability if solutions that are brought forward are not supported with the time, space, resources, and policy changes needed to make them happen.

Evidence of Success
The results of successful projects speak much louder than words. It is the evidence that gives the organization the internal force to move to a higher level of success. Results should be documented, communicated, and celebrated.

The most difficult dimensions of this model for leaders are supporting the dialogue and enabling its outcomes to be implemented. Leaders have traditionally viewed themselves as responsible for the intention. But, then, they have assumed also that they must have the answers about how to attain it and must tell others what to do so that the solutions can be implemented. In contrast, in this model, the leadership is still responsible for the vision, but then everything changes. Leaders must release control, give up having the answers, and support others as they interpret the intention and shape what to do. This is very difficult for most of us to do. It requires living with chaos, confusion, and ambiguity. It requires accountability at all levels. In the end, however, it is the only mechanism for access to the collective intelligence. And, the results are amazing, if not sometimes miraculous.

Following are supporting leadership behaviors and corollaries to these fundamentals.

1. Provide Information About the Organization to Everyone. Everyone in the organization must have access to information about the institution and the external factors impacting the institution. Only when people have information can they integrate it into their own framework and factor it into solutions to problems, behaviors and ideas for achieving the intention. People, with a stake in the outcome, automatically act on that information. Universities need to provide ways for everyone to have information about budget and perceptions of parents, employers, government, and taxpayers so that they can act on it creatively. Controlling information flow because of the fear that it will be misused or reported in the newspaper is counterproductive. If, as leaders, we expect people to provide solutions to problems, then they need all the information.

2. Act As a Coach. In promulgating this leadership model, leaders spend most of their time guiding, coaching, asking questions, holding project groups to a timetable, and supporting accountability. Enabling people to come forward with projects that will produce progress toward the intention does not mean leaving them alone. Quite the contrary, it means a lot of listening and shaping ideas into action, trusting that the group sees potential that you may not be seeing.

3. Ignore the “Terrorists”. Enormous amounts of leadership time is wasted on people who are complaining, finding everything that is wrong, or simply not participating in solutions. We fondly refer to these as the terrorists. Listening to complaints that are not tied to proposals for solutions or offers of assistance is time consuming. Similarly, carefully constructing plans in order to lay people off under the organization’s complicated policies and procedures takes too much time and energy. Rather, leaders must focus that precious resource--time--on the individuals and the teams that are committed to their project and being part of the solution. The others will
gradually be ignored by their colleagues. More specifically, one cannot mandate productivity; one cannot mandate commitment or passion. But when individuals or groups do step forward, they are appropriating their spirit to the organization. It is that spirit that will produce success. It must be nurtured, enabled, and rewarded. This ought to be the focus of one’s time.

4. **Provide Training and Development.** Leaders build the capacity for performance in an organization. A person or a group with a commitment about an idea is not enough. Those people need training and development opportunities in order to perform. Central to success are opportunities to learn and apply information about total quality principles, teamwork, effective meetings, leadership style and leadership models, customer surveys, facilitation, change management, business process engineering, and market perceptions about the organization.

5. **Let Go Of Structure.** Give up the attachment to organizational charts. Real results happen as a consequence of relationships anyway; most of us already know that. Many people want to stay in their box in the organizational chart because, if they stay there, they will know who to blame and they will feel safe. They will not have to be accountable for real results; they can hide.

6. **Be Willing to Live with a High Degree of Ambiguity and Chaos.** Moving to solutions is chaotic when one is relying on a lot of people without a lot of structure. But the ambiguity and chaos is the fertile garden for dialogue and creativity.

7. **Don’t Wait for Consensus.** Waiting for everyone in the group to agree before acting causes paralysis. Consensus is not achievable anyway. Act with those who are aligned and ignore the rest.

**EXAMPLES**

The application of this approach in the Center for Computing and Information Technology and the Faculty Development Program at the University of Arizona is described. Both the process and the results to date are summarized. In both cases, the four part leadership model was carried out iteratively. It began with a glimpse of what must happen and the declaration of an intent/vision about that. As people became involved in achieving that intention, a fuller understanding of what was needed unfolded. And, a new iteration started as we produced evidence of success about the first level, leading to a new intention/vision to achieve higher level results. In this way, the organization continues to understand more and continues to move to a higher level. Because of the iterative nature of the process, these descriptions are necessarily over simplified. What actually happened and is still occurring is not nearly as orderly as implied here. Rather, it is usually confusing, chaotic, and nonlinear, but creative.

**THE CENTER FOR COMPUTING AND INFORMATION TECHNOLOGY - A CHANGE IMPERATIVE**

The business of campus computer centers has changed irreversibly. Only a decade ago, all computing resources resided physically in a single location and were managed by one organization, serving all campus constituencies. Today, technology resources are dispersed throughout the campus, expertise is shared at varying levels and depth, and new technologies are adopted daily and easily by end-users. There is no longer support monopoly on campuses.
Without a doubt, the players, rules, dynamics, and requirements for survival and success in the IT have changed.

At the University of Arizona, the threat of outsourcing provided an added challenge. In 1994 the University of Arizona engaged an external consulting firm to evaluate whether or not to outsource many of the functions then being performed by the Center for Computing and Information Technology (CCIT). The findings of the consulting firm revealed significant organizational gaps but conceded that the resources, both human and technological, existed within the organization that could enable it to overcome its problems. Clearly CCIT was not achieving the goals and objectives of the University community since many of its customers were aggressively seeking other providers of computing services. Given a choice, CCIT could be downsized to a minor player in University affairs or could rise to the challenge and become a vibrant and significant partner in the future of the University.

**Intention.** CCIT accepted the challenge to redefine itself. With a new leader and challenge from senior University administration, a process of self-review and transformation was initiated. Quite literally, it began with a formal declaration of a new intention: “to support a flexible structure that will accelerate electronic information exchange through campus partnerships for the successful design of the University's future.” In addition, CCIT committed to implement the consultant’s recommendations published in “Information Technology at the University of Arizona: Strategic Directions for the Year 2000”.

With this shift, CCIT embraced a new role of facilitator/partner rather than a monopolistic provider of technology services. What followed is a period of breakdowns, breakthroughs, and major organizational accomplishments. The original statement of intent has evolved into next levels of stronger articulation. In a recent CCIT management retreat, integration became a stronger emphasis; agility and flexibility, part of the original intention, are now assumed as the modus operandi.

**Dialogue and Enabling.** Strategic intention does not automatically translate into action. Looking back, the first months of this transition consisted of countless open meetings, major preparation for cabinet presentations (never before done with IT), campus focus groups, and visits to department heads and stakeholders. A management consultant advised CCIT to expect resistance, emotion, attrition, and even “terrorism.” The declaration of change naturally causes upset--this can be a vulnerable emotional period, the discomfort of being between the old and the new.

Internally, CCIT teams were empowered to create an environment of opportunity where individuals were encouraged to excel and to participate. The pyramid of directors gave way to bottom-up project teams. In a paradigm shift, CCIT made a dramatic shift to a flattened organization that encouraged openness to new ideas and adoption of cross-functional collaborations. The idea of “partnership” is now firmly imbedded in CCIT and is the “standard of practice” in all endeavors. Projects and opportunities were enthusiastically discussed and new grassroots initiatives were born. To realize outcomes quickly, we abandoned or ignored prior structures--functions that had become silos of turf, budget protectionism, and sources of conflicts. Until staff were engaged in action, the idea of the abstract intention did not come to life. To date, there is not a full consensus in philosophy and organizational ideology but we have many projects that demonstrate alignment, competence, discipline and accountability.

**Evidence.** What evidence of success do we have to show since 1994? CCIT accomplished major strategic projects linked with the plan commissioned by the university’s president. The graphs
below speak success; without major investment increases, CCIT delivered an incredible expansion of campus services, particularly in network applications. Results and demonstration of accountability led to a new campus identity and renewed credibility for CCIT.

143% increase in e-mail accounts supported centrally
512% increase in computers on the central network
157% increase in central servers managed
967% increased in modem connectivity
1,074% increase in web activity
2,503% increase in internet traffic

During this same period and using existing budget resources, CCIT acquired or replaced major systems: Convex supercomputer for research computing, IBM 9672 for administrative information, IBM SP2 for mail and instructional services, cluster of HP servers for personnel and other database services. A major business process reengineering study was completed, including an integrated information architecture map for institutional data. Today, simple process improvements can be initiated without fanfare or formality (e.g. account creation process now takes 10-20 minutes, compared to the 2- to 3-day turnaround a year ago). Countless formal and informal partnerships are now supported, including faculty development, campus standards coordination, classroom renovation, technology planning. A staff-initiated Project Opportunity web page screens and reviews project ideas for formal adoption by the organization.

Relationship-building and partnership success had its biggest payoffs in the business side of IT. In alliance with campus budget officers, CCIT made major strides in strengthening its fiscal state, including the retirement of a computing deficit and the successful disengagement from federal regulatory constraints. CCIT’s willingness to be subjected to an open and honest financial review led to a more credible stewardship role for IT infrastructure management.

CCIT results have not gone unnoticed. In October, CCIT received four separate formal awards for quality and excellence from the Governor's state-wide competition. For three years in a row, individual CCIT staff received campus awards for excellence (including the AVP for CCIT).

In summary, transformation at CCIT involved stepping into unexplored territory. It started with a declaration, a statement of intention made to our senior administration, but without the knowledge of how to do it. Reframing people’s minds about their technical role required breaking through thick walls of traditions; it required adoption of a new mental framework while the loyalty remained with the status quo. The structures from our past had to be ignored as the campus engaged in a frenzy of projects to leap-frog to the next level.

**FACULTY DEVELOPMENT**

In November 1994, a faculty development program was initiated with the commitment to allow the faculty to determine the shape and elements of the program and to support what they felt was needed individually and collectively. The program, now two years old, is successful by nearly any measure.

Volunteers from the faculty were solicited via an article in the university newspaper with a clip-out coupon for return. Everyone who turned in the coupon was invited to an initial meeting that was a formal brainstorming session aimed at developing some initial projects and the intention. Some faculty never returned, having come primarily, it seemed, to identify past injustices. Those who committed took charge of several projects aimed at capturing the attention of the faculty.

The intention that emerged is: “Faculty development provides the climate and support through which faculty can become independent creators of new learning environments. It provides expert technical support; mentoring and collaboration opportunities; inspiration, information, and
Faculty groups were invited to participate in a dialogue about the intention, allowing for their interpretation about what projects to do. Out of the dialogue came some powerful results, including retreats with participation of faculty from all colleges and staff from the library, computing center, and teaching center. Today, about 20% of the teaching faculty or roughly 300 are involved in various course and curriculum change projects of their own design. As a consequence of the early results and a video developed by the group, the State of Arizona provided a special allocation of $1 million to expand the effort. We are currently negotiating with corporate partners who wish to participate. For 18 months, the program remained a “virtual” faculty development effort run by a faculty team and partners from the Computing Center, Treistman Fine Arts Center for New Media, University Library, University Teaching Center, and Video Services. Together these partners provide a complete infrastructure for supporting all aspects of curriculum innovation project design, development, delivery, and assessment. Recently, 7500 square feet has been set aside to bring the partners together and to provide education and support for faculty who are engaged in creating new learning environments that:

- apply current knowledge of how learning occurs;
- provide opportunities for students to employ a variety of learning styles and strategies;
- introduce creative teaching techniques and procedures; and
- use appropriate technologies to provide anytime/anywhere student-centered access.

To ensure rapid innovation, this new Faculty Development Center has become the heart of the UA/Lucent Technologies Alliance for Learning. Through the combined efforts of content specialists from the UA and communications experts from the Bell Laboratories the Alliance is designing research-driven global classrooms in cyberspace that merge voice, video, data-sharing, problem solving, role playing and other opportunities into one comprehensive, integrated learning environment.

These outcomes--the amount of activity, the quality of the activity, the creativity in the projects, the number of faculty participants and the space and dollars that have begun to flow toward this program--could never have occurred or been predicted using a conventional administrative process that creates an official organizational structure and establishes programs predetermined to be the most needed.
REFERENCES


