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Strategic Planning at the University of Massachusetts Amherst

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Abstract—The University of Massachusetts Amherst is engaged in a multidimensional planning process that will help the University better to carry out its mission at the advent of this new age of shared knowledge. Our planning must assist the University reaffirm in its practices a university's fundamental founding principles and articulate anew the challenges and opportunities for this Land Grant research intensive University, where scholarly teaching and learning, discovery and research, and outreach and application remain paramount elements in the contract of public trust and societal obligation.

Nearly four centuries ago in his treatise, "The Advancement of Learning," Sir Francis Bacon postulated a change in the nature of knowledge: From a priori knowledge to a model of induction and personal hypothesis. A key significance of this postulation is that it characterized the ongoing flux of knowledge.

Globally, our colleges and universities are among those institutions in which people discover and develop knowledge. Knowledge is not automatically acquired by virtue of proximity or immersion in college and university settings. Knowledge comes to the prepared mind. Thus, for colleges and universities, planning (properly) is the activity of striving to ensure nurturing contexts for inquiring minds. It is our responsibility as educational leaders to prepare minds to receive knowledge--to create it and share it effectively and to employ it humanely and wisely in the public interest.

Strategic planning and thinking have occurred at the University over the last four years. The planning process has been multi-faceted, flexible, dynamic, and participatory--involving students, faculty, staff, and administrators in various task forces and working groups. Annual unit-planning and budget cycles have emerged synchronously with long-range planning. We anticipate greater sustainability with these progressively coherent and integrated planning practices. This paper will address in greater detail the referential and relational aspects of the context for a new horizon in planning at the University of Massachusetts Amherst.

INTRODUCTION AND CONTEXT:

Not long ago, while flying at 59,000 ft., it occurred to me that we have come to accept with surprising ease the notion of multidimensional living. There I was glimpsing the curvature of the earth highlighted by extraordinary hues. In my lap lay my notes for the next phase of our planning process at the University of Massachusetts Amherst, and in my briefcase was Quantum Society (1994) and its recurring phrase, "If we understand the actual physical basis of transformation, perhaps we can align ourselves with it. Perhaps we can help it to unfold more quickly with fewer mistakes." That moment of realization was epiphanal. At 59,000 feet one perceives the world differently; it is transformed and transforming, urging us outside of or, perhaps, beyond ourselves. An apt analogy, I thought, for what characterizes the impetus required to ensure the adequate transformation of higher education for the next phase shift. The constant has become flux--CHANGE. This vantage, thus, became for me the context for a new horizon of higher education. It also brought into clearer relief the implications for planning in such a context.

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Some of the recent literature (Green 1997) on the "transformations" in higher education notes the dilemma in which higher education as a social institution finds itself. On the one hand, as Clark Kerr (1994) reminds us, universities are among a small set of institutions that have remained relatively unchanged in what they do for almost 600 years. Anecdotal evidence and Faculty Senate humor might suggest that the university has been able to endure because its faculties exercise deliberately their contemplative prerogatives to resist change. On the other hand, the vigorous and dynamic quality of universities in response urgent global needs is easily demonstrated. The past 50 years in American higher education has encompassed sweeping changes in the creation, application, and dissemination of knowledge. The image of the scholar in a monastic cell engaged in scholarship as a personal indulgence simply no longer holds. Still the irony exists. Perhaps it is in the Yin and Yang of higher education that the creative energies for enduring, yet appropriately changing scholarship are found. What are the implications for planning, then, amidst the flux as well as through the ambiguities? What do we mean by planning? What do we intend when we talk about planning long-range or strategically? Indeed, why plan? If we no longer have the predictability afforded us by Newtonian physics but have instead the randomness of quantum mechanics, what purpose can planning have? What purpose might or should it have? These questions, of course, prompt questions more elemental: What are the fundamental founding principles of our university? Of any university? Do they still hold? And if those principles still hold, what responsibilities do we have regardless of the changes, shifts, transformations, or random occurrences? What is it we wish to ensure and maintain. Many would say Knowledge. More accurately, we would say, we hope to ensure environments where knowledge can multiply through application; where it can be enlarged through sharing; where it can be improved and refined through challenges and questions. We would say these things because knowledge as we have come to value it refuses to be contained; it bounds over categorical barriers, inventing and reinventing itself as it goes. Knowledge (like the world we experienced at 59,000 feet) transforms, is transformed and transforming.

Over the past 400 years we have witnessed a change in the very nature of knowledge from the a priori concept of knowledge of the scholastics to a Baconian notion of knowledge based on induction, experience, or personal hypothesis to knowledge in flux. We know we must plan for times of undreamed possibilities that assume divergent yet connected ways of thinking and knowing. Unsettling? Often, but it is always exhilarating. As the year 2000 approaches, we are scurrying to ensure that our computers are "Y2K compliant" and feeling somewhat smug at our clever thoroughness. But are we also focusing beyond the immediate to the new horizon? In the introduction to Schroedinger's Machines (1996), Paul Davies ponders how we will manage quantum computers and their ability to process information in many alternative realities simultaneously--and integrate them into a single real-world answer. It is an urgent question for us. The students coming to our universities now will live, work, create, and re-create knowledge in such environments shortly after leaving us. If the 19th century was the machine age, and the 20th century the information age, we cannot ignore the compelling evidence that the 21st century will be the quantum age.

With the immediate and simultaneous availability of all the information of this century, we must understand that it is not knowledge alone that will prepare our students for whatever lies ahead. They must first be prepared to recognize and receive knowledge before they can create and share it effectively; they must also learn to use it for the betterment of humankind. Why, then, do we need to plan? In the broadest of senses, strategic planning at the University of Massachusetts Amherst must strive to ensure nurturing contexts for the development of inquiring, wise minds. Nothing less is desirable nor defensible. Citing Kitchner and Brenner, Awbrey and Scott (1994) state: "Wisdom then requires not only a knowledge base (factual and experiential), but an awareness of the contextual nature of knowledge (awareness that one's views and those of others are interpretations), and awareness that knowledge is a temporary settlement based on the current best evidence (recognition of uncertainty)."

As a Land Grant research intensive public university, the University takes seriously the multiple mission of scholarship as a public trust, its dissemination to our students as a moral vocation, and its application as a societal obligation. These fundamental principles were true for us in 1862 when the Morrill Act made possible the establishment of the school; they endure today through all the visions and revisions of the school's many practices and legacies; through its passage through ages agrarian, industrial, informational, and soon-to-be quantum; through its more traditional recitation of mission: teaching, service, research, and soon-to-be "learning communities."

The vision statement that existed as the University of Massachusetts became a five-campus system and as we approached this current phase of planning reads:

> "As the system's flagship campus, Amherst draws from throughout the Commonwealth, the nation and the world, providing a broad undergraduate curriculum with over 100 majors, and more than 50 doctoral programs. It will continue as a Carnegie Research I University, and will continue efforts to obtain a median ranking among the American Association of Research Libraries; to obtain membership in the Association of American Universities; and to maintain a leading presence in a variety of Division I intercollegiate sports."

If we think again of the paradox of universities, we can recognize in this statement greater affinities for more traditional academic characteristics. Through the planning process of the past four years, additional characteristics of at least equal value have emerged as well, depicting an even more vivid and vital vision of the University of Massachusetts Amherst. In Strategic Action, Scott (1996) proffers this statement:

> "As the flagship, public Land-Grant Research University of the Commonwealth, the University of Massachusetts Amherst is dedicated to creating a Commonwealth of Learning. It will strive to achieve the greatest human potential among its students, faculty, staff and alumni, and through them and its integrative programs in teaching and learning, in research, discovery and creative endeavors, and in outreach and public service, to create a better and a wiser world. It will continuously strive to attain preeminence and serve as a model of excellence for others to emulate. The University will continue its historic commitment to removing barriers: barriers to access; barriers between liberal and professional education and between different areas of knowledge; between the University and society; between different cultures; between different groups--faculty, students, staff, administrators; between administrative structures, the organization of the University and the physical structures. The University will be integrative in all that it strives to do."

Keeping in mind this re-vision, our vision in planning, thus, encompasses both continuity and change; we reexamine our traditions in acknowledgment of contexts changing at an exponential rate in order to achieve a future inspired by our heritages yet anticipating other futures. Recognizing and identifying the characteristics of the University and articulating as shared values those characteristics provide a relational and referential frame for the planning process. Through the commitment to rejuvenate this University from a firm platform of shared values, common purposes, and collaborative effort, we believe we can stimulate the requisite fertile milieu from the most enduring contexts of our past. This, then, is the larger context for planning at the University of Massachusetts Amherst.

We are engaged in a long-range planning process that will help the University fulfill its mission efficiently and effectively. Through this process we will demonstrate a readiness to change--to become better than we are. To accomplish this at the University of Massachusetts Amherst, the planning must be dynamic, flexible, and nimble; it also assumes the involvement of faculty, students, staff, and administrators through governance and administrative structures. It is an iterative and multidimensional process that strives to ensure the requisite vigor and rigor for academic and academic support programs. It is strategic: it anticipates and responds to an expected future operating environment by making decisions and allocating resources today (DiPeri 1997). The process itself is in flux as it strives for innovation while acknowledging and referencing its most honored traditions--perhaps, not unlike what Hammel and Prahalad (1989) describe as "fold(ing) the future back into the present."

For the past four years the campus has been engaged in what we call a "community-based" approach to planning. Prior to this time the many and varied planning efforts tended to lead to more inert plans, with efforts often having the lifespan of that of the administration involved (see below Summary of the Canpus Planning Process, 1971-1996). As is noted, planning has occurred at the State, System, and Amherst Campus levels.However on the campus alone there have been fourteen (including the current one) significant planning efforts in the past 25 years:

* Graduate Program Review (1971-1973) to look at program evaluation and resource allocation: no action taken;
* Academic Program Review Task Force (1974-1977) to look at program evaluation and resource allocation: no action taken;
* Committee on Missions and Goals (1974-1976): no action taken;
* Long Range Plan (1977-1978) to look at program evaluation and resource allocation: no action taken;
* Planning for the 1980s (1980-1982) to look at program evaluation and resource allocation and to do scenario modeling: no action taken;
* Long Range Plan (1982) to look at mission and goals: qualified acceptance;
* Strategic Planning (1983-1984) to look at the "process" of planning: no action taken;
* Retirement Reallocation (1985-1986) evaluation and allocation: adopted;
* Campus Planning Council (1984-1991) policy development, mission, goals: policy papers written; mission statement endorsed on campus and approved by Trustees; no action taken on goals;
* Retirement Reallocation (1989) evaluation and allocation: adopted, not implemented;
* Reallocation (1990-1991) evaluation and allocation: adopted and modified;
* Allocation of Budget Savings (Reallocation) (1991-1992) evaluation and allocation: adopted;
* Provost's Plan for Restructuring (1992-1993) to look at "organization": adopted by Faculty Senate and Board of Trustees;

It is not surprising, then, that initial references to "plan-

ning" (albeit "strategic") was met with healthy skepticism if not entrenched cynicism. Reactions to engaging another planning exercise, given this campus' history of and experience with planning, necessitated clearly stated expectations about outcomes. What we needed was a philosophical and financial framework for the actions we would need to take, given the context in the state of Massachusetts, in the USA, and around the globe. Understanding and discharging effectively the responsibilities of leading change in higher education became a dimension almost palpable for everything attempted in the institution.

* Strategic Planning (late 1993-present) vision, goals, process, academic and academic support program review, resource reallocation, reorganization, base budget restructuring (through a Retirement Incentive Succession Planning Program [RISPP], process review, process restructuring, process reinvestment), and reinvestment in major initiatives identified through the first phase of this planning process: Strategic Action (1996) developed as the philosophical and fiscal framework for the implementation of the strategic planning and thinking that had occurred over the three previous years; "...provides compass headings for navigating the course ahead."

(Scott 1996)

THE PLANNING PROCESS:

I. Task Forces and Working Groups

In the late fall of 1993, a wide segment of the University community was enlisted to serve on six Task Forces (Teaching and Learning; Public Service; Economic Development; Multiculturalism and Diversity; Research and Graduate Education; and Faculty Roles and Rewards) and six Working Groups (Financial Resources; Support Services; Student Services; External Relations; Physical Facilities; and Human Resources). One of the things you will note about this list is that it is undistinguished: everything here is predictable and what one would expect to have represented in some way as areas/issues for review at the University of Massachusetts Amherst in the mid 1990s. Eighteen months later the reports emerged from all the efforts of the groups. The ideas and recommendations from those reports became more horizontal than vertical and contributed substantially to elaborating on a definite direction for the future of the University.

II. Unit Planning

In the late Fall of 1994, all the units in the University were given a series of "planning questions" having to do with their understanding of their role, goals, activities, quality measurements, cross-unit activity, unit directions, organization, needs, etc. as the first step in bringing into better synchronization the planning and budget cycles and to address more intentionally the relationship between planning (not just an exercise to be filed on a shelf) and budgeting (how an institution demonstrates and supports its principles and demonstrates its values). Meetings with the unit heads in various executive levels were held to facilitate questions about the unit planning process and to relate it to the previous activity of the Task Forces and Working Groups.

There are many possible parts of the unit planning questions to comment on, but one is of particular note. The unit planning question pertaining to a unit's goals strives to clarify what, in fact, should be accomplished by goals: they are gleaned or flow from the mission and vision and should identify directions and intentions that apply broadly to the University generally. Goals should guide the campus' activities and efforts and help reaffirm priorities. There are academic, academic support, and planning goals. Apropos this conference, allow me to give as an example of a goal: Provide excellent educational opportunities for students of diverse interests, abilities, expectations, and backgrounds, fusing high-quality professional and technical instruction with liberal education and providing selected high-quality graduate and graduate-professional degree programs consistent with the mission and principles of the University. In other words, such a statement of a goal becomes more readily understood as an intermediate definition of the University's purpose.

As plans were completed by the units, they were successively integrated by the next higher unit level until a more fully integrated unit plan emerged from each executive area. In March 1995 the campus received as *Strategic Planning* a document containing the integrated plans from the units.

III. Strategic Thinking

Simultaneously, the Chancellor was developing from a synthesis of the Task Force and Working Group reports and from national and international directions and ideas in higher education a "Strategic Thinking" paper. One of the effects of the paper was to provide a larger and comprehensive context for much of the work that had resulted in the reports from the Task Forces and Working Groups. The paper also engaged a larger audience. While approximately 170 people had been involved intimately in the efforts of the Task Forces and Working Groups, the widespread attention given to *Strategic Thinking* engaged another and larger segment of the community.

Strategic Thinking reviewed the historical significance of the Land Grant Universities, arguing persuasively for the equivalent of a third Morrill (1862) Act and the equivalent of the Hatch (1887) and Smith-Lever (1914) Acts to-

ward the creation of a Commonwealth of Learning and a Republic of the Intellect. *Strategic Thinking* proffered the emergence of a new system of higher education for the next millennium just as the Morrill, Hatch, and Smith-Lever Acts had established over a period of some fifty years.

Strategic Thinking called for a reinvention of the dream. It was no idle or arbitrary call to dream what might be thought of as impossible dreams. The principles undergirding (or overarching) next steps, so to speak, were found in the reports of the Task Forces and Working Groups. They are as follows:

* Recognize the ongoing imperative for change.
* Work toward blurring boundaries and rendering barriers permeable to make the University more integrative.
* Attend to the ecology of the learning, living and working environment.
* Foster the continuing evolution from a monocultural to a multicultural and eventually to a transcultural community, valuing the richness and differences of individuals and cultures, yet affirming our common humanity.
* Provide access to opportunity.
* Focus on human empowerment and enablement to become a more caring institution.
* Become more externally and internally connected to avoid a zero-sum philosophy, to develop a constituency, and to become more effective and efficient.
* Commit to a new environment for learning, discovery and outreach through infrastructural, administrative and organizational renewal, and through creative use of technology.
* Strive for multidimensional excellence in a realistic array of activities to enhance the influence and viability of the University in the State, the Nation and the World.
* Adopt a set of catalysts for constructive change.

I shall return to this last catalyst presently. But first let me note that now in the planning process itself multiple dimensions and non-linear activity were more visibly present and more clearly delineated from previous planning processes. Let me note, too, that what was clear from planning to this point was that the University's multiple parts, with its Land Grant mission and its research mission were mutually reinforcing. Indeed, it was sometimes the case that the tensions among the various parts of the missions prompted better thinking through new angles of refraction. Multidimensional excellence became more understandable as an attainable goal to the campus community. Through the planning reports and *Strategic Thinking*'s articulation of the principles espoused in those reports, the very concept of excellence held as central an array of dimensions, each one necessary, but insufficient in itself for the definition of the whole. The University could begin the slow, arduous (but essential) process of understanding the implications of valuing "excellence" construed as a "whole" constituted by the quality existence of the sum of its parts. The necessary change that lay ahead simply could not support the continuation of "everything for anyone and everyone" without the sure and rapid deterioration of even promising directions. The effort to position the University best for whatever lay ahead would require everyone's best thinking...and subsequent actions.

IV. Strategic Action

I return now to the last principle: Adopt a catalyst for constructive change. During the months that followed the publication of *Strategic Thinking*, discussions about its very real implications for the campus of the University of Massachusetts Amherst helped to shape *Strategic Action*, the catalyst for constructive change. Whereas *Strategic Thinking* had provided a contextually broad philosophical framework for planning and renewal, *Strategic Action* detailed not only the sources of revenues but also categories of expenditures over the next five years, describing what was necessary to generate the revenue differential between what the campus needed to spend to position it more appropriately for this next period and the sources of current revenue. *Strategic Action* was published in May 1996.

V. Academic Program Planning and Review

As *Strategic Action* was being developed, the Board of Trustees called for an Academic Program Planning and Review across the System. Academic Affairs was asked to address the issues of quality, centrality to mission, cost, and demand for all of the programs, majors, and departments. While this was a Board directed initiative from the System level, it was entirely consistent with campus planning and actually expedited some review of programs. Again, I will note the multidimensionality of the planning process. Through the process(es) themselves we found we were mirroring some of the unpredictability in the external environment. Also, the program review urged a closer look by faculty at program support or restructuring across areas. The winds of change were surely stirring within. It was becoming more evident that this planning process would not rest so easily on a shelf.

VI. First Steps Toward Synchronization

In the Fall of 1996 at the beginning of the new budget cycle, the campus was able to use for the first time Strategic Action--the change catalyst--as it began its budget request preparation and planning for FY 1998. Requests were

prioritized in each executive area and then prioritized across executive areas, with ample opportunities for supporting arguments to be made by a unit or units.

VII. Fine-Tuning and Iteration

With the completion of allocations through this cycle, we will need to review and assess the "catalysts" as well as test our assumptions against the societal, economic, demographic, and ecological environments, making adjustments where it seems appropriate. Understanding that flux is the only constant urges flexibilities in approach and execution without needing to make radical departures in planning, though at some point a more radical approach may be called for. The larger, guiding principles, however, should serve as "strange attractors" in what may otherwise appear to be an increase in the number of uncertainties in the environment.

VIII. Striving for Excellence: A Workplan for Restructuring to Meet the Goals of Strategic Action Initiatives

You will recall that Strategic Action identifies the major initiatives that act as catalysts for moving the campus toward becoming a more integrative and collaborative institution. These catalysts for constructive change will be funded through allocation, reallocation, and restructuring of the budget. The purpose of this workplan is to identify new approaches to the organization of work and the deployment of human, technological, and financial resources aimed at achieving the proposed goal of restructuring. Its goals of improving services, reinvesting administrative savings, transforming the working environment, and operating more efficiently contribute toward the fulfillment of one of the main guiding principles of Strategic Action:

* To commit to a new environment for learning, discovery and outreach through infrastructural, administrative and organizational renewal.

Using a methodology that assesses (determining the suitability of a process for change), evaluates, selects (at the executive level from a project team's recommendation regarding a process reviewed for change), and implements, the campus leadership can accomplish the restructuring of the base budget.

In addition to drawing upon Strategic Action for general directions, the workplan will also integrate with and build on existing University system-wide and campus-based change initiatives. It is an integrating mechanism that will direct campus change projects with the goal of increasing the quality of services to faculty, staff and students in both the academic and academic support areas.

IX. An Overview of the Key Components of the Plan

Let me provide an overview of the key components of the Plan, speaking more to the issue of how the campus has approached a component rather than to focus on the specific details of a component.

* Revenues
* Expenditures
* Reallocation
* Land Grant-AAU Aspirations

X. State Appropriation Projections

This information was generated by the Financial Resources Working Group. The group gathered information from state-level research groups and used information on the history of state tax revenues and the University's appropriation as a percentage of those revenues.

XI. Major Initiatives

The major initiatives were derived from the recommendations of the various Task Forces and Working Groups. The focus here is not to explicate each of the categories but to display the broad areas emergent from the first phase of the planning process and to indicate their implementation through the annual budget process.

* Organization of Colleges and Schools for the Knowledge Base of a Modern Land Grant-Research University;
* Teaching, Learning, and Curricular Reform;
* Advising and Retention;
* Diversity and Multiculturalism;
* Faculty and Staff Roles and Rewards;
* Interdisciplinary Programs;
* Scholarships and Financial Aid;
* Creation of Community;
* Steps Toward the Land Grant-AAU Model.

XII. Campus Physical Development Projects

In one part of the plan showing an elaboration of the expenditure component of the plan (a significant expenditure will need to be made to cover the exceedingly high amount of deferred maintenance), it is evident that *Strategic Action* acknowledged the state of the campus' facilities and infrastructure. Also emphasized in *Strategic Action* was the need for planning replacements and for planning future growth. Thus, the Chancellor established the Office of Campus Planning and Space Management--centralizing the responsibility for all campus planning--to advise on and guide the physical development of the campus. To comple-

ment the program and financial planning, the application of guiding principles in the physical dimension of the campus strives to accomplish a more coherent and referential coordination of master planning, capital planning, facilities development, and space management.

Previous masterplanning efforts had sought to keep pace with increasing enrollments. The new vision of masterplanning encompassed all the variables in the external environment of higher education, the communities in which the institution is situated, the profile of its learners, and the best practices of its peers. It was intended that Campus Physical Master Plan Master Plan would be a framework, a guide for the campus' physical dimension as *Strategic Thinking* is for the philosophical. Landscape for Learning was being developed at about the same time that *Strategic Action* was being prepared. It provided a framework for developing physical areas of the campus as *Strategic Action* provided the template for financial and programmatic directions.

XIII. Comprehensive Campaign

We are now in the second year of a five year comprehensive Capital Campaign. Its goals are detailed in *Strategic Action* and are consistent with the principles that emerged through the Task Forces and Working Groups. In addition to a specific dollar goal for the campaign for enhancements of excellence, it is expected that the level of annual giving as well as the percent participation will increase significantly.

XIV. Context Revisited

At the beginning of this paper I referenced the relative ease with which we all seem to have accepted, if not the concept of multidimensional thinking, then at least the notion of multidimensional living: we wear many hats and masks for at least as many different occasions in our professional, social, intimate, and spiritual lives; we speak with some facility about the various parts that constitute a "whole" greater than their sum; we communicate in verbal and non-verbal languages diverse and for reasons as disparate. It is not always as evident, however, that two other postulates essential to an understanding of dynamic, higher education planning--flux and connectivity--as readily prevail. The environments in which we now must plan for the future of higher education require that we gain full fluencies in the integrative and synergistic languages of connectedness, flux, and multidimensionality. For at least a decade, some of the most persuasive "planning" voices have been promoting the infusion of other perspectives into strategic planning. "Unpredictable" and "chaotic" have become increasingly familiar words in our lexicon. In these times, effective planning requires the application of the understanding of those words to make possible from the seeming array of infinite possibilities the "creative order" necessary for our unique university circumstances. What we perceive as chaotic in our environments is simply order without predictability (Cartright 1991).

While Knights and Morgan (1991) caution us to reject the notion of technologies of power embedded in the language of strategic discourse as the only legitimate avenues of understanding organizations, the terrain can be as treacherous (sometimes seductively so) outside more predictable practices and prescribed boundaries of long-range planning templates. Interestingly, it is again Knights (1992)--this time using Foucaultian architecture--who dissuades our residing too comfortably in the notion that our "subjectivities" (static plans) can be fixed--finally and firmly--in knowledge because knowledge is in flux. He returns to our paradox by suggesting that this precarious dilemma calls for planning, imaginative and inventive planning.

Recent literature contains, too, the notion that the unpredictable and chaotic is necessary for the transformations that must occur. Hayles (1991) refers to chaos as that "...opaque turbulence that challenges and complements the transparency of order." What is significant here is that a professor of English is writing about the complex dynamics in literature and science and suggesting that change only occurs through "...negotiations at multiple sites among those who generate data, interpret them, theorize about them, and extrapolate beyond them to broader cultural and philosophical significances." An effective strategy for institutional planning might well be to engage the various disciplinary approaches to change as forwarded in the current scholarship of our faculty. Even a recent article in ‘ *Science* ’ conjoins in its title concepts often held as mutually exclusive, disallowing any possible consideration that an aspect of one might legitimately inform the other: "Science and God: A Warming Trend?" (Easterbrook 1997). He suggests that through a reconciliation of rational inquiry and spiritual conviction, a mutual recognition of our "linked destinies" might be more fully comprehended and integrated throughout all our efforts. Change, indeed.

As institutional leaders we will need to be able to demonstrate in the very processes we use to affect the outcomes we say we desire, those values our planning seeks to achieve and or maintain. It will require good judgement and wisdom to ensure that we preserve as well as innovate. The dilemma I have referred to earlier in this paper as the Yin and Yang of the academy is contained as well in our planning efforts. Long range planning in and for higher education is complex; higher education is complex with its concerns about access, declining resources, issues of accountability, technological growth, changing demographics, globalization, new revenue streams, university outreach (societal impact), institutional autonomy, governing boards, economic development, government policies (local, state, na-

tional), as well as the changes issues around our faculty, students, and staff. While this list is in no way definitive, I find some solace in Lewin's (1992) assurances that underlying dynamic complex systems can be found a set of rules that connect and unify seemingly disparate data.

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Any linear description of a process masks its complexity in all its dimensions and misrepresents its movement through time. It also conveys a process much more contained than its reality. I return to points raised earlier: unpredictability and randomness. While planning at the University of Massachusetts Amherst strives to ensure nurturing contexts for wise, inquiring minds, the templates it engages are sometimes as much in flux as the times they are anticipating. We proceed with firm conviction of the inherent strengths in what Havel (1995) refers to as our "essential similarities." We proceed, too, on the basis of our belief in an internal coherence and connectedness--also not unlike that of an anticipated yet unpredictable time.

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