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Developing a Strategy to Change Academic Behavior

By Maury Seldin

Academia is charged with the responsibility of developing and disseminating knowledge. Great progress has been made in the wake of the Scientific Revolution. But, the organizational structure of our universities and the development of disciplines utilized a system based upon compartmentalization of knowledge; a system that has become obsolete.

Most problems faced by society today are complex, involving many disciplines. While there are many successful efforts at interdisciplinary studies, and new disciplines developed out of blending of established disciplines[i], the general thrust of academic research is to pursue rigor with scant attention to relevance and with a focus in a single discipline rather than the multiplicity of discipline that come to bear on the complex problems faced by society.

Rigor is an important component of the research process, but often dominates the selection of research projects. Furthermore, rigor as best used in mathematics is an abstraction which requires a translation to reality. Often, that translation loses some truth in reflecting the way the system works.

Part of that loss is attributable to the assumption of the rationality of people in their decisions and actions. And while progress in made in areas such as in behavioral economics and behavioral finance, there is still a great deal of room to develop the paradigm that blends emotion and reason and accounts for shortcomings in the processes involved in thinking. These ideas have been discussed in the earlier essays in this series,

The purpose of this essay is to discuss the development of a strategy to foster a change in societal thinking and behavior through a change in our behavior in academia. There was at time when academia played a larger role than it does in current times, at least according to the opening paragraph of the preface of a 1996 book by David Hollinger, as follows;

> "Thirty years ago one of the most respected public moralists in the United States identified academic intellectuals as vital agents of the future of the nation, and the entire modern world. Now that human beings are 'emancipated and thus deprived of the guidance and support of traditional customary authority,' the aging Walter Lippmann told readers of the *New Republic in 1996,* 'there has fallen to the universities a unique, indespensible and capital function in the intellectual and spiritual life of modern society,' Cultural leadership belongs to the academy 'rather than say, to the churches or government,' because behavior depends on what people believe to be 'true.' And when we want truth we now know better than to look to priests or politicians. Instead, we rely on 'the universal company

> of scholars supported and protected and encouraged by their universities.' Lippmann, who was not himself a professor, professed to be uncertain whether the era's men and women of learning were up to the challenge. But he did not doubt that the challenge was theirs, and that the rest of society stood to benefit from their efforts to meet it."[ii]

That was the good news. The opening sentence of the next paragraph contains some bad news. It is "Such sober respect for universities and their faculties has largely passed out of fashion." We can do a significantly better job in academia. We look to our institutions to be a vehicle of progress. What we need is a strategy to motivate some academic leadership to pave the way. There are trails in the right direction, but they do not carry a lot of traffic.

We are going to look at the disparity of education in our society as a case type problem. Along with that we may consider disparity in income and housing, all of which are associated with a degree of deprivation for segments of our society placing them below acceptable standards according to our national policies.

This case type illustration is for the purpose of looking at research and education in academia as playing a significant role in attacking the problems. The idea of strategy comes into play in developing the plan and dealing with the risks.

Goals and Objectives

Goals may be thought of as general statements of a desired condition. Objectives may be thought of as the specific measurable targets which need to be achieved in order to realize the goals. Policies are the guides to actions used to achieve objectives. Strategy is the set of policies used in the plan to achieve the objectives, especially including the policies that are defensive in nature.

Setting Goals and Utilizing Strategy

Setting Goals. Individuals differ widely as to the practice of setting goals. At one extreme there are those who live day to day with little thought of the future. At the other extreme there are those who not only consider the future, long term and short term, but translate the goals into measurable objectives, and utilize a strategic approach in setting the objectives. That is, they outline defensive policies to protect against identified risk and unidentified uncertainty. These are in addition to the aggressive policies that they expect to pursue to achieve the goals.

Some of the inclination to whatever approach is taken is attributable to genetic influences and some to environmental influences. Dramatic shifts in style are unlikely, but one may certainly adjust style by making an effort, especially after observing the behavior of others who are admired. Or, one may otherwise obtain an education on the approach and make adjustments as a result of newly acquired wisdom. Free will enables such changes. But some people, for whatever their reasons, are less amenable to consciously changing

their style to one that approaches problems by putting the problems in the context of goals and objectives, and strategy to achieving the objectives. The choice of what one wants to achieve, and how to achieve it, is a highly personal matter.

The opening chapter of the monograph[iii] which speaks to making progress through the development and dissemination of knowledge also speaks to individuals leaving a legacy of having made a difference through there academic work. The strategy for changing academic behavior starts with changing the behavior of some leadership and through that to arrive at a change in the institutional structure.

This process is focusing on the goals of the individual. As to national goals, we may loosely speak of "no child left behind" in education, a "decent home and suitable living environment for every American family," and a war on poverty not yet won.

Strategy as a Concept. The term strategy is so widely used that everyone believes that he or she understands its meaning. As such, most may be right in a general sense. But, if one is involved in the process of developing a strategy, the results achieved will be better if greater precision is used in grasping the technical meaning. Indeed, if one looks to the dictionary, the definition will usually start with a reference to military strategy of utilizing "the science or art of combining and employing the means of war in planning and directing large military movements and operations." A better understanding of the term is found in the book by John McDonald, *Strategy in Poker Business and War*. [W. W. Norton and Co., Inc, 1950.]

The following quotes shed some light on the technical meaning.

> "To be prepared [for uncertainty] is to have a strategy." [Page 12.]
> "Imperfect information creates uncertainty among individuals in games and in society…Where uncertainty exists, strategies is employed to clarify or further obscure the information…But it [the theory of games] may be able to tell what one can get and how one can get it." [Page 14.]
>
> "The strategical situation in game theory lies in the interaction between two or more persons, each of whose actions is based on an expectation concerning actions of others over whom he has no control. The outcome is dependent on the personal moves of the participants. The policy followed in making these moves is strategy." [Page 16.]

Some additional quotes from another book, *Real Estate Investment Strategy,* by Maury Seldin and Richard H. Swesnik, further clarify the point that strategy is the set of defensive policies. These quotes are as follows:

> "An investment strategy is a plan for making investment decisions…The guidelines in the plan are called policies"
> "Policies that are designed to protect the investor from loss are defensive policies." [Page 11 of the Third Edition, John Wiley and Sons, Inc. 1985.]

The point of this is that in developing a strategic plan, we need to be concerned with more than where we want to go, and how to get there. We need to be concerned with the risks that we face. Thus, our strategic plan should include defensive policies.

Educational Goals and Objectives

There is a wide diversity in the perspectives of our society's educational goals and objectives. This diversity not only is about what should be included but about the relative importance of that which is included. As a working thesis, this essay expounds one particular view, and develops a strategy for it. The reader may use the same strategic process for his or her own view to the extent that it differs from the one espoused.

The other issues of income and housing are related to the educational issues. For our purposes, the salient issue is education.

Substantial segments of our nation's population are receiving an education insufficient to enable them to avail themselves of adequate opportunities in our society. Part of this is inadequate income for obtaining adequate housing, frequently related to the availability of better quality education.

For the benefit of the deprived segment of the population, as well as the benefit of society at large, we need a better approach to ameliorating the set of problems which create the conditions leading to the deprivation.

It is academia's responsibility to develop an approach to deal with the situation through developing a better understanding of the system. The purpose of the understanding is to be able to make better decisions. The approach may be a strategic approach.

Getting academia to better pursue the process may be viewed as another strategic problem. It is as though we had a play within a play. In order to deal with developing both strategies more effectively, let us turn to the idea of the level at which we approach problems.

Perfective Approach

There are no panaceas, but a strategic approach based upon what has been called a perfective approach is has a great deal of merit. The strategic approach is in addition to curative and preventative approaches. The concept is best illustrated in the excerpt shown in the box that follows.

The Three Levels of Meeting Problems*

What happens when we are sick?	We turn to a doctor to cure what is wrong: To stop an infection or repair an injury. It is the most familiar way to treat an illness - *after* it has occurred. This is the CURATIVE level.

There is another level of medicine.
We now vaccinate to prevent polio;
And science continues to find new ways to
Protect us from disease after disease.

This is the PREVENTIVE level.

There remains a third level in the care of our bodies. Medical science seeks not only to cure and prevent illness but also to perfect our health; to bring new strength and zest into our daily life through fullness of health.

. This is the PERFECTIVE level.

And wherever we turn, we find the same
Three levels of meeting any problem….

IN OUR NATION	Democracy is an unfinished business in our land.
At the Curative level	Pass laws to eliminate legal injustice and economic hopelessness, wherever these may remain in the United States.
At the Preventive level	Recognize fully the interdependence of all groups in our society and all parts of our nation; realizing that no one can be sure of his freedom, or of his livelihood, when others are restricted in theirs.
At the Perfective level	Advance from adequacy to excellence in American Life; setting still higher standards of achievement for ourselves , and in service to mankind.
IN OUR WORLD	The nations of the world continue to fear each other.
At the Curative level	Deter force by force – in competing blocks of nations which divide the world.
At the Preventive level	Create an enduring world order through world law, maintaining the peace through a world police.
At the Perfective level	With the peoples of the world now living within sight and sound of each other, *live as neighbors, everywhere on earth* – working to increase together all that is good for the Family of Man.

Whoever we are-
Whether we find the problem in ourselves, in our family, in our work, in our city, in our nation or in our world – what we do about our problems is ultimately determined by our character. And each of us is given the power: to shape his character, to train himself in good action, to choose between right and wrong, to raise himself and those around him, to better levels of life, practicing the wisdom of Micah: "To do justice, to love mercy, and to walk humbly before your Lord." (Micah 6:8)

*Excerpts from an ad placed by the Jewish Theological Seminary of America circa 1969. Copy retrieved courtesy of
. the Ratner Center for the Study of Conservative Judaism, The Library of the Jewish Theological Seminary of America.

In summary, the perfective approach relies on the natural forces to foster the desired condition. This reliance is within an engineered structure that relies on the forecasts of nature's behavior. Our analyses needs to focus on what are the essential characteristics of the nature under consideration, and what characteristics or conditions are absent.

One way to seek to identify the conditions is to look for correlations with deprived education. Such identification does not necessarily prove evidence of causation. The theories of causation need an explanation of relationships among the variables and an effective policy needs to be able to alter some of the variables.

One approach is to model the situation in which the various variables are dealt with as part of subsystems within a larger system. For example, home environment is a variable. Different home environments may be modeled reflecting impact on the quality of education of the children. Additionally, peer pressure exerts an influence. The operation of peer pressure may also be modeled. As third variable, we might include the quality of local schools. We can study the impact of these conditions, but a better understanding of the system is arrived at by looking at the economic, social and political structure of the community as the larger system within which these subsystems operate. That would give a macro perspective, but we also need to delve down into what people are thinking and how that thinking is impacted by the environment. The strategy may include some triage for those that have fallen through the net, and some preventative measures for those at the cusp of disaster. But the perfective approach would look to change the conditions so that the natural forces would work toward better educations, especially for those that are at the lower end of the spectrum.

Rather than to attempt to lay out such a theoretical model, it is much more workable for present purposes to select some aspects of education and examine the thinking associated with better performance. The thinking, of course, depends in substantial measure on the underlying values.

Underlying Values

Many Americans live with comforts not even dreamed of by the wealthy of an earlier era. Our nation caught the wave of The Enlightenment without the baggage of the monarchy and the authority of the church in affairs of state. The free institutions contributed in great measure to the rising standard of living, although some would attack the character of the quality of life. Pun intended. It was attacked on 9/11 of 2001 with violence by terrorists in contrast to the verbal criticism that is an acceptable form of attack.

What people want to achieve and what they will do to achieve it differs so widely that whether we talk about educational goals or whether we talk about political-economy we get back to the underlying values. The basic natural law or principle here is that human natures differ, but they cluster, so that behavior on some activities is a good predictor of behavior on other activities.[iv]

The clustering may be looked at as a disaggregation of the population based upon a variety of characteristics, including those influenced by the forces at work in the marketplace or world politics. Understanding one's criteria in setting goals is aided by understanding the underlying values that influence the reactions to these external forces.

Truth. The first principle for developing any strategy is reality. It is unwise to deceive oneself about the reality of objectives, risks, and rewards without due consideration of the people and institutions involved.[v]

The Enlightenment brought significant progress in the move towards truth, especially in the blending of *a priori* reasoning and reasoning from experience. As a result, we have a better understanding of how the system works. Understanding is sometimes dichotomized as to theory and practice. The blend, by adding good judgment is known as wisdom.

The difficulty that we get into with theory is that we have to simplify the models in order to better identify the relationships. Systematic deviations from the model we use in theory may not be readily observable and quantifiable. The observed practice includes only the reality that we are able to see. Sometimes "gut feel" tells us a lot. Or, you can call it intuition. It may even be emotion. But, reality demands that we look to see things the way they are, not the way we wish them to be and not the way that we assumed them to be for the sake of constructing models used to help us better understand the relationships.

Many academics think that because they have developed some thoughts that they have arrived at reality. It is amazing how much the view of quality of the idea is enhanced by its creator. Similarly, it is amazing how those with contrary beliefs in place are unreceptive to examining the merits of the new idea. It may take a generation for adoption of the new ideas because the new ideas await those who have not preformed opinions that they are reluctant to reconsider.

The key is to know the truth about the forces at work, especially the external forces beyond one's control. "May the force be with you" can be seen as a search for transcendental assistance, perhaps from a deity. The reality is that one is better off finding out what the forces are and developing a strategy of going with them with time on one's side and seeking to alter only those that are alterable.

Justice. Among the concepts of justice that are relevant here is the concept of distributive justice. As discussed in the earlier essay on visions and values, distributive justice deals with the allocations of resources, education in this case. The context is in the search for a just society.

Freedom. Freedom and liberty are used synonymously. These terms are rooted in the natural rights of man, as we see it. These rights recognize the infinite value of the individual. This is in the context of system of justice reflecting the government as having its source of authority from the people governed.

There are alternative values in which the individual is subsumed to the community as a whole with the community having a life of its own different from the aggregation of individual interests, with a source of authority other than those governed. Under our system, there is a protection from the tyranny of the majority

Quality of Life. The relevance of quality of life relates in large measure to the command of resources, normally through income and wealth. Our society is heavily dependent on the system which produces and distributes income and wealth.

That system is in constant need of repair because of the tendencies for abuse, both in "working the system" and violation of its regulations. Some of the repair is legislative and some is enforcement. But a great deal has to do with attitude in compliance with the spirit of the law. There is selfishness in the spirit of some as well as meanness in the consideration of the rights of others.

We may seek to enhance the quality of life by repairing the world in the sense of influencing the individual action as well as improving the system. That can be changing the rules or improving the institutional arrangements.

Many of these changes come through government policy, federal state and local Thus; we are concerned with the societal values and actions as well as the individual values and actions.

These and other underlying values influence the selection of objectives and the position taken with regard to the risks to be encountered en route to the achievement of objectives.

Systemic Change

These values influence the development and operation of our institutional arrangements. Some of the values are abused. There are risks in attempting to change the institutions, especially from unwanted, and sometimes unknown, side effects. There may also be an incommensurability of values so that trade-offs are necessary, for example as between justice and mercy or equality and freedom.

There are also risks of irrational behavior, as well as other risks. The strategic approach may simply seek to maximize within acceptable risks. In doing so, the better the system is understood the more that can be accomplished within acceptable risks.

Here is where academia has a role. In order to better understand the system in which a substantial portion of our population is getting an insufficiency of education, we need the interdisciplinary models that can show the relationships between the way people think and the functioning of the environment in which they live. There is a great deal to be done in changing the operations of the institutions, but there is also a great deal to be done in changing the way people think, that is to say helping people develop better reasoning through better education, informal as well as formal.

The strategy for getting academia to do a better job in its role may also be taken at t the three levels alluded to earlier. The triage case is the easiest in that separation from academia is a reasonable action within certain constraints. The preventative approach might be approached by university administrators actually taking an interest in the faculty

as people rather than as a production unit. If they prefer to lock at faculty as a production unit, then an investment in developing the resource may well be the way to go.

The perfective approach, however, may have the best chance for the most significant gains. As allude to earlier, academia might reward wisdom rather than discoveries as discussed in Part II of the book in progress from which the following quote is taken;

> " A Contemporary Problem and Progress
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> A contemporary problem is manifest in that these journals are typically focused on discipline rather than issues. The issues may be inter-disciplinary, but the academic structures are typically departmentalized by discipline. Or, using the words of Edward O. Wilson from his *Consilience: The Unity of Knowledge*, **"Grants and honors are given in science for discoveries, not for scholarship and wisdom….The same professionalism atomization afflicts the social sciences and humanities."** [Emphasis added. Page.42.]
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> "This organization of knowledge has afflicted us in the way we organize our programs and pursue our discussions."[vi]

What Kuhn wrote about science in general, also applies to social science. The quote that follows from the monograph, *The Challenge to Our Thought Leaders,* published by the Homer Hoyt Institute and serving as Part I of the book in progress.

> "Prevailing Topic Selection. Academia has been enthralled with the rigor. Thus, much of science, including social science, has focused on rigorously 'mopping up' details of the discipline. Thomas S. Kuhn, in his seminal work, *Structure of Scientific Revolutions*, writes, 'Normal research which is cumulative owes its success to the ability of scientists regularly to select problems that can be solved with conceptual and instrumental techniques close to those already in existence. (That is why an excessive concern with problems, regardless of their relation to existing knowledge and technique, can so easily inhibit scientific development.)'[p.96, Second Edition] The parentheses are his, and the key word is "excessive."
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> Earlier in the same book, he writes:
>
> > "Few people who are not actually practitioners of a mature science realize how much mop-up work of this sort a paradigm leaves to be done or quite how fascinating such work can prove in the execution. And these points need to be understood. Mopping-up operations are what engage most scientists throughout their careers. They constitute what I am here calling normal science. Closely examined, whether historically or in the contemporary laboratory, that enterprise seems an attempt to force nature into the preformed and relatively inflexible box that the paradigm supplies. No part of the aim of normal science is to call forth new sorts of phenomena; **indeed those that will not fit the box are often not seen at all** [emphasis added]. Nor do scientists normally aim to invent new theories, and **they are often intolerant of those**

> **invented by others** [emphasis added]. Instead, normal-scientific research is directed to the articulation of those phenomena and theories that the paradigm already supplies." [Kuhn, Thomas S. *The Structure of Scientific Revolutions*, 2nd edition, Chicago, The University of Chicago Press, 1970, p. 24.]

The thrust of modern research being in the box, and the difficulty of going beyond the established paradigm, is indicated in the following quote, again from Kuhn. [Page 76.]

> "Philosophers of science have repeatedly demonstrated that more than one theoretical construction can always be placed upon a given collection of data. History of science indicates that, particularly in the early development stages of a new paradigm, it is not even very difficult to invent such alternates. But that invention of alternates is just what scientists seldom undertake except in the pre-paradigm stage of their science's development and at very special occasions during its subsequent evolution. So long as the tools of a paradigm supplies continue to prove capable of **solving the problems it defines** [emphasis added], science moves fastest and penetrates most deeply through confident employment of these tools. The reason is clear. As in manufacture so in science – retooling is an extravagance to be reserved for the occasion that demands it. The significance of crises is the indication they provide that an occasion for retooling has arrived."

It is time to blend the theoretical constructs in academia do as to better understand the system. Academia does an excellent job within disciplines in the routine of "mopping up." But the mess is so great that a little more mopping up won't do. Leadership needs to examine the institutional structure in a fashion parallel to that alluded for mass education and develop its own strategy.

At this point identifying the problem is what this academic can do, as well as having drafted a book in progress that serves as a road map for gaining a better understanding of the other disciplines that come to bear. We need more of that search for knowledge that will help us deal with the issues that are of our greatest concern.

<u>The Start of a Strategy</u>

The start of a strategy begins with specifying goals and/or objectives and risks that may be encountered en route. The "go-for-broke" types disregard the risks and go for the big win. Their variability of results is wider than that of the minimax types. The minimax types set a constraint of risks and then seek to maximize within that constraint. Their average performance is generally higher than that of the "go-for-broke' performance.

Goals for academics vary among individuals as with goals in any of the professions, including obtaining financial rewards for work and accomplishment. The contrast between academia and the larger society is described in a quote as follows;

> "As Bernard Barber put it in 1952, 'men in the larger society' are expected to be 'self-interested' in their occupational activities… in the sense that they serve their own immediate interests first.' But in science, Barber explained, "a different moral pattern prevails": people are 'expected by their peers' to serve themselves by serving the 'community."[vii]

For those in academia, the rewards of recognition of achievement may well valued more than such rewards would be valued by those in other areas of endeavor. Academic rank is a significant indicator of achievement as are honors and awards. Recognition through publication is related to recognition in rank and honors, but publication also serves as a recognition of its own.

Many academics are motivated to operate according to the system's rules, which heavily favor refereed publication in prestigious journals. The criteria for such publication is heavily weighted to rigor. A review of such publications may well reveal that there is fashion in methodology so that the publication patterns sacrifice project selection based upon relevance in order to go with the rigor.

The key here is how to change the rules. One might be tempted to rely on a political process. That might work with some strong leadership. But, leading by example is a tried and true method of influencing actions of others. This goes back to the patterns of the ancients in reasoning by analogy. Thus, some demonstration that works focused on relevance is an option.

Such work still needs to meet the test of the best available rigor, feasible within the constraints of the project. The constraints of the project are related to the position in the curve of developing knowledge in an area of concern.

The earliest stages of the curve of developing knowledge have a gently rising slope with less rigor in developing evidence supporting the concepts than the later stages with a sharply rising slope. At the later stages, it is easier to scope out pieces to refine the concepts and provide evidence with rigorous methodology.

Kuhn refers to "mopping up" as what most researchers do. See earlier quote in previous essay. These mopping up operations are high on the curve and among the most supportable research projects. They are also low risk and therefore a favorite of most researchers.

Consider the following quote;

> "The concept of 'mainstream academic professionalism' s fairly straightforward. It involves a suspicion of grand theory and epistemological quibbling, a **preference for concrete and clearly manageable projects,, a penchant for technical methodological refinements**, and, above all, attention to aspects of social sciences and humanities least likely to be mistaken for political advocacy , cultural criticism, or journalism."[viii] [Emphasis added.]

Although the innovation of new theories, better paradigms, and superior approaches may come from individuals willing to take the risks of breaking away from the established patterns, the development of the relevant knowledge may be so grand in scope that it takes a team approach to deal with the complexity, at least when the issues are interdisciplinary.

Getting a man to the moon had its great success, in part, because the organizational structure of the space program integrated experts from various disciplines into teams that could effectively blend the disciplines necessary to deal with the issues. That organization is in contradistinction to simply calling in experts from the relevant fields to deal with specific questions.

Using the disparity of education as a complex issue requiring an interdisciplinary approach is a good example for the discussion of a strategy for academia. It is an especially good example if we focus on the civic education necessary for democratic institutions, particularly if we consider the level of education in the countries from which out greatest terrorism threats emerge.

In this play within a play approach to our discussion of strategy, we are looking at a strategy for education of the masses built upon knowledge generated by academia, which knowledge would most likely emerge with a better strategy for academia in fulfilling a role conceived of as "…[training] experts for government and industry and to educate citizens so that the electorate could respond appropriately to the initiatives of experts."[ix]

The elitism in the quoted statement gets tempered to the degree that the electorate is educated and participates in the process of developing grass roots approaches to the problems. Much of the societal change actually comes through organizations. It is the existence and operation of the organizations that will determine the delivery of action which may be based upon the knowledge developed in academia.

A "go-for-broke" strategy may be developed based upon the wisdom of the state authority as enlightened by academia. The alternative of a minimax strategy is to rely on the wisdom of the electorate with democratic institutions. The results of such reliance depends in great measure upon the education of the electorate as well as the wisdom produced by academia and the sociological and political process by which it reaches the political sphere and emerges as public policy.

Clearly, according to our values, the process of education in Arab countries, using madrasses to teach hate of the West along with the religious education and the absence of secular education that would enable the students to participate as contributors to their own economy and as civic participants in a governmental process, is a recipe for disaster. It is not only their economy that suffers, and their individual freedom in the various senses we have discussed, but it is our security from terrorists.[x]

A strategy for winning the peace my well include our assistance in developing the body of knowledge in the social sciences responsive to the Islamic culture and compatible with

a version of democracy suitable for that culture. It also includes assistance in the development of grass roots organizations that provide for citizen participation to reflect their will.

The book in progress develops the theme that we can transfer knowledge from one area to another. In the case at hand, we are using the example of knowledge useful for a foreign policy to be helpful for a domestic education issue. In the case at hand, we need to foster an example of how an interdisciplinary model to deal with education shortfalls is in reality a model of income issues and housing issues, as well as education issues.

Developing the interdisciplinary model, also alluded to in the previous essay, is the desired product of the strategy for assisting academia to better pursue its function of developing relevant knowledge so society is better able to deal with its problems. The issue is the determination of an effective way to set an example of demonstrating the product of that strategy.

Universities contain within their structure centers and institutes that focus on selected areas of study. Some of these are interdisciplinary in nature. They are logical candidates as recipients of support for interdisciplinary studies that may be on the gentle slope of the curve. This requires a vision of relevance and a grasp of the different perspective from which the issues may be seen. It also require a talent to see the seamless blending of disciplines as a holistic approach in which the system is modeled.

The government is a potential source of such support. Certainly the impact of the creation of the National Science Foundation in 1950 was the start of a great transformation of research in academia. As an alternative, there are now many well funded private foundations that have the financial resources to support the needed effort. The big issue is who has the vision to make the investment, probably in several different major universities, to develop the lead example.

Universities change over time. There is a great merit in the autonomy of academics to do research of their own choosing. Some will choose to go with a prestigious team that can afford to wait a longer time period for the results. The analogy here is with the relationship of a worker's compensation to the time between paychecks. The greater the time spans the greater the per day compensation.

This essay is focused on getting some academic to pick up on the education thrust of a strategy. That may be for domestic purposes or as part of what the series of essays leads to as a strategy for undermining the provision of future terrorists. It may also be adapted to dealing with the housing issues. It is a generic approach that picks up on some of the book in progress.

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[i] The book in progress, *Improving Decisions: Toward a New Age of Enlightenment,* discuses cognitive science and network science. There are numerous other developments and centers which blend discipline, but the prevailing structure at universities and pattern of research still focuses on compartmentalization.

[ii] See *Science, Jews, and Secular Culture: Studies in Mid-twentieth Century American Intellectual History,* by David A. Hollinger, Princeton, Princeton University Press, 1996.

[iii] The monograph refers to *Our Thought The Challenge Leaders,* published by Homer Hoyt Institute, available on the Hoyt site, www.hoyt.org .

[iv] See discussion in book in progress, *Improving Decisions: Toward a New Age of Enlightenment,* available on the ASPEC Center for Scholarly Enterprise (ACSE) site, http://www.spicequest.com/acse/index.htm . Click on "Improving Strategic Decisions," then go to Chapter 5, The Process of Choice: Mind and Values, under the side heading "Values and Policy Choices," subheads "Policy Differences in the Stock Market" and "Psychographics."

[v] This reality is what was discussed as "truth" in Chapter 6, Discipline Perspectives: Organizing Knowledge, *Improving Decisions: Toward a New Age of Enlightenment,.*

[vi] See Chapter 6, Discipline Perspectives: Organizing Knowledge, *Improving Decisions: Toward a New Age of Enlightenment,*

[vii] David A. Hollinger in *Science, Jews, and Secular Culture,* page 111, quoting Bernard Barber in *Science and the Social Order,* pages 131-2.

[viii] Hollinger, page 133.

[ix] Hollinger, page 63.

[x] See discussion in earlier essay, ----------