Ball State University:
Second Guessing the Future
or
A New Educational Paradigm

Honors Thesis
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"Learning is a dangerous thing for the simple reason that persons come to prefer the better because they come to understand the worst."

Carl G. Rosberg
Department of Political Science
University of California, Berkley
Introduction

American society is currently undergoing an economic and social transformation. The traditional heavy manufacturing base which has been the mainstay of the United States' economy for a century is eroding away. A high technology, service based economy is assumed to be developing in the vacuum. Higher education can be an effective catalyst for promoting change and improving the local economy. Universities are working within this changing paradigm, however, they seem to be carrying over their traditional orientation of professional-occupational training to meet the challenges of the new era. There are problems associated with this orientation. Specific occupational skills learned in college are not necessarily the skills needed by a company in the future. Additionally, a favorable curricular orientation of a university cannot guarantee the drawing in of high technology companies to a particular area. In short, it is impossible to "second guess" the future.

There are alternatives to guess work. A traditional suggestion would be for higher education to offer a more open-ended, liberal arts curriculum emphasizing analysis, synthesis, and generally more contemplative learning. This would allow the individual to apply his entire body of knowledge and learning to problem situations as they might arise, thus avoiding circumstances where one is caught short when specialization and changing conditions render his learning useless.

This alone may also fall short of affecting truly desirable changes for society. If used to pursue purely economic ends, and the goals of an aging industrialized society, the results could be disastrous. Therefore some ethical grounds for the use of thinking skills must be instituted into the universities' curricula. An effort must be made to develop an understanding and appreciation of the world as an inter-
connected set of systems within an ultimately metaphysical realm. The success of this undertaking would benefit humankind through a significant qualitative change in society.

The world is presently and unquestionably changing. The shape it may take is uncertain but it is in society's power to enhance what is good and desirable, and to diminish what is bad and undesirable. The form the world takes can be intelligently led by higher education, however this will require significant changes within our existing institutions. The form our institutions of higher learning take will help to decide the future.

Ball State University and Muncie, Indiana are currently struggling with the aforementioned changes. Ball State and Muncie respectively are arguably typical examples of higher education institutions and cities across the United States. They will be used as case studies throughout this thesis.
The Failure of Heavy Manufacturing in Muncie

Muncie is one of those "automobile belt" cities which sprang up in central Indiana near the beginning of this century. Automobile manufacturing meant plentiful jobs and automotive plant "spinoffs" employed great amounts of manpower in related machine tool industries. The Ball brothers and their glass manufacturing business may have sparked the industrial revolution in Muncie but it was Chevrolet, Warner Gear and Delco-Remy, which perpetuated abundant industrial prosperity.

Tremendous changes have occurred in the American industrial scene since the boom days of heavy manufacturing. In those days, education was not a major factor in getting a job. Most employees could be trained in a matter of hours if not minutes. Now, inexpensive Japanese imported automobiles, management's focus on short-term goals, low worker productivity, inadequate quality standards, and the high price of American labor have reduced the automotive industry to a sickly second-rate competitor in the world market.

Muncie has been gravely stricken by this loss of the competitive edge. Since the mid-seventies, unemployment has hovered around 10% and reaching almost 20% in the winter months of the 1982 recession. For undereducated factory workers and their families who came up to Muncie from the South after World War II to work in the machine tool shops, this recession can be properly termed a depression with no way out. No economic recovery based on a resurgence in heavy manufacturing is in sight. The prospects are, in fact, so utterly dismal that a local business man at a recent National Association of Manufacturers seminar with students at Ball State remarked that "the automotive industry as we know it today in Muncie is gone." The consensus of the
meeting was that the basic automobile-related industries would continue to operate but at a drastically reduced scale and in a much different form.

The High Technology Solution

Local businessmen and politicians are now looking towards a new, high technology era which promises to create more new jobs in our increasingly service based economy while rejuvenating old industries through automation and computerization. High technology, made possible by an unprecedented research effort in integrated circuitry by NASA and an equally unprecedented marketing effort by assorted industries, is seen as the only saving grace for the economy. It should be a virtual panacea for all hitherto existing illnesses within the business community. This is the view of Indiana's Governor Orr and Lt. Governor Mutz whose 1982 economic improvement plan is projected to create 800,000 new jobs in Indiana by 1990.

Charles Stroh, President of the Muncie-Delaware County Chamber of Commerce, has suggested several ways in which the high technology boom can be useful to the community's industrial base. To appreciate his suggestions fully, however, one must first understand his point of reference. Mr. Stroh acknowledges that the United States, and therefore Muncie, has lost the large scale automotive operations seen in the past for good.

This is furthermore indicative of the health of large scale industry as a whole. There has been little recent growth among any of the truly large companies. Within the small businesses, those which employ up to roughly one-hundred workers, however, there has been steady growth and higher rates of productivity.¹ Mr. Stroh's analysis of the situation
and reference point is that smaller industries will be attracted to areas such as Muncie to benefit from the good labor pools, marketing structures, utility rates, and other economic incentives while existing small businesses will remain, and this will lead to a diversification of industry in Muncie.²

From this perspective elements of the Japanese model of production can be brought to bear. It is hoped that small manufacturers, after showing ability, would begin to supply those still existing large industries with daily shipments of parts which would be used immediately in production, thus reducing shipping, stocking, and storage costs, minimizing assembly line delays due to parts shortages, expanding the markets of the local small businesses, and keeping more money in Muncie. Such a cooperative spirit within the local business community would go far in stabilizing Muncie's economy in general as it has done in Japan.³

Furthermore, Mr. Stroh anticipates, as a part of the drawing in of new small businesses, the springing up of new high technology oriented industries and the expansion of such existing industries into the Muncie area. Automation and computerization could revitalize Muncie's heavy industry, replacing costly and often careless human labor with new efficient, tireless, exacting robots. With some foresight on the part of both the large manufacturers and the new businesses, an automization of old industries supplied by local robot manufacturers could be affected. It is within Muncie's grasp, according to Mr. Stroh, to plug into the high technology age. Muncie could be at the forefront of economic revitalization.⁴

When one begins to speak in such generalities it becomes very easy to become caught up in the fantasy scope of future aspirations while neglecting to consider the realities of the situation at hand. For a business
man it is very invigorating to talk about technological advances and renewed growth in a community. One dare not lose sight, however, of the facts concerning a high-technology revolution in Muncie. There are several important if not insurmountable obstacles which could thwart the hopes of the Chamber of Commerce. To begin with, Muncie is not the only community in the depressed United States looking to high technology as their way out of the slump. California, with its highly touted "Silicon Valley," Massachusetts, and North Carolina have all taken the important steps towards the high technology option and are already benefitting from it. An article in Science asks, "How many Silicon Valleys and Route 128's can we have? If everyone tries for the high-technology fix, can everyone win?" One must assume that at some point the market for chips and robots would become flooded. Muncie is already years behind in getting started. If Muncie cannot plug in until investors see a clear demand for local development, and the market continues to be filled by existing operations in other states, it is certain that the hoped for growth would be minimized. Every day's delay reduces Muncie's chances of a share in the market. Certainly considering the city's central location, excellent transportation facilities, highly trainable labor force, and special tax incentives, some number of "chip factories" could be coaxed here, but it is at best uncertain as to whether they alone could take up the slack in the local economy, and it is even more doubtful as to whether such industries could arrive here in time or in great enough number to supply the retooling of Muncie's existing factories.

The University and Industrial Technology

The question of the existing base of higher education available and the degree to which it will be able to meet the challenge of a high-tech-
nology future must be addressed. Thousands of workers will need to be retrained, and the availability of quality learning programs in high technology is crucial for the drawing in of sought after industries.

To understand the relationship between high technology and higher education, one must refer back to the beginnings of the high technology movement. During World War II, the United States saw it as her duty to advance the weaponry of war at first to keep ahead of the massive research and development effort of Nazi Germany and later to end the war as quickly as possible at the risk of the fewest American lives. America turned to the universities for technical help, mobilizing them as "think tanks" for the war effort. Tremendous efforts on the part of America's foremost scholars resulted in the splitting of the atom, and the modern age was born. America had found that money placed in the coffers of universities for scientific and technological research was more convenient than the creation of additional government run scientific establishments. Once geared up for such endeavors, the universities found it difficult to return to their traditional orientations. In fact the "cold war" years furthered the trend as United States strived to maintain the lead in strategic weapons and later to regain the lead in ballistic delivery systems. It is important to note that the results of all this technological research were not being applied solely to defense needs. A significant portion was being applied to consumer related industries.

It is equally important to note that up until World War II higher education served mainly as credentials for social status and privilege. The university had largely been removed from the world's economic considerations. Gradually, and for the first time ever, university produced technology became a tool of capital accumulation and growth. To institutionalize industrial development, educational goals had to be re-
vamped. Training for large scale corporate employment was to take place within the context of education. A means to an end had been discovered; economic prosperity through university inspired technological advancement.

General prosperity and affluence did indeed result as did the expectations and demands of society. Americans saw the jobs being produced by the industrial boom and realized that a college education could mean advancement. With significantly greater amounts of money in the general economy and in personal bank accounts, college enrollments increased sharply. By 1974, enrollments had increased 400% over the 1940 level, bringing total enrollments to over eight million students. Public education was left the responsibility of expanding to meet the flood of new students. Professional-occupational training met the demands of the influx.

The Response of Higher Education Curricula

**Ball State and Professional-Occupational Training**

Ball State is quite a typical example of the result trends in public higher education have produced since the 1940's. 70% or more of Ball State's students are the first generation of their families to attend an institute of higher education. Almost all of the students come here for a career oriented education. In the words of Robert P. Bell, president of the university, students at Ball State want to "learn to earn." Statistical evidence supports Bell's position. A full 20% of Ball State students, or some 3,600, are currently majoring in business related fields, while 6% (approximately 1,000 students) are nursing majors, with an additional 6% of the student body majoring in the fastest growing area, computer science. Additionally, journalism, radio and television,
teaching, and architecture and related planning fields host large departments. The majority of remaining departments all emphasize career orientation in their curriculums to a greater or lesser degree. Professional-occupational training is at the forefront throughout the university.\(^{14}\)

As mentioned earlier, responsive education is seen to be crucial for the growth of high technology in a community, and Ball State's devotion to professional-occupational training would appear to provide sound impetus for growth in Muncie. According to President Bell, Ball State is helping its students and Muncie prepare for a more service oriented economy while emphasizing more technical training to upgrade educations and skills for new high technology job demands as they arise for the worker.\(^{15}\) Of specific interest for investors in a new era for the community is the recently completed solar research laboratory in the College of Architecture and Planning, and the new computer center now under construction. These are long term investments in the future and commitments to the new era.\(^{16}\) President Bell has outlined long-range goals of a program in computer education. Among these are:

1) To acquaint students with computer technology applications in their selected disciplines.

2) To enhance student capabilities in acquiring and processing information with computers.

3) To offer updating and renewed opportunities to professionals and businesses in computer technology advances.

In addition, Bell has proposed a "Community and Business Development and Service Center" which would "expand existing efforts to integrate Ball State's services, research and instruction with community business activity."\(^{17}\) While Purdue University goes into robotics, Ball State will
go at technological development from the non-hardware side. This service orientation approach should please Stroh and the business community.

The Need For a Common Core Curriculum - The Business Approach

It is a fact that Ball State is building in preparation for the future. Plans for new facilities seem innovative and far-reaching. One must wonder, however, just how innovative and timely these plans are. Maybe Ball State is really not leading the way towards the future at all, but simply trying to stay even or possibly even trying to catch up with everyone else.

Charles Stroh admits that the new computer education building should have been built five years earlier to maximize its potential usefulness. Ball State, he thinks, is not being a leader, but is just keeping up. Ball State may not be viewing the entire spectrum of changes that may have to be implemented if it is to remain current, useful, and competitive in the ever changing future. New buildings and facilities are without a doubt indispensable for meeting changes, but a revised common core curriculum could make this construction more meaningful.

In an untitled address at the 1975 College Placement Council National Meeting, one F. Newman spoke up in favor of the establishment of a common core curriculum composed of business, psychology, and English courses which should become standard and replace the traditional core of humanities, arts, and sciences which has become outdated. This would better prepare students for the increasingly technical and business oriented world.

The goal here is occupational preparation. In the service economy communications skills (English), being able to deal with other people (psychology), and of course business itself would be paramount for
success in the work world. This proposed curriculum would facilitate these needs while allowing for the applicability of all other courses of study to the core. For example, a student studying business might want to take a French course. No longer would he have to sit through hours of irrelevant Voltaire or Moliere. The new curriculum would allow for special "business French" which might enhance his understanding of international business. In short, no elective class would ever be a waste of time. Courses that could not be made applicable would die out due to loss of enrollment. Newman acknowledges that "many faculty will resist this need to revise courses to make them relevant to the real world. However, if they have no choice, this goal might be achieved."  

The Liberal Arts Approach

Whatever the merits of this system may be there is a certain reluctance at Ball State to adopt such measures. According to Provost Koch, although the university is "job oriented," there really may never exist such an exclusive course as "chemistry for nurses." These types of classes may be possible or even desirable in a Master's Degree curriculum or during an internship, but for undergraduates Koch – an economics professor – believes in the law of diminishing returns. At some point a student will have received a great enough amount of theoretical knowledge in a specified field that any more concentration in that area would become superfluous. By the same token, inordinately lengthy hour requirements towards a particular major may not be optimal in terms of time usage. A greater degree of specialization in a field as is suggested by Newman may not serve in society's best interest.

Although specialization is emphasized at Ball State, too much specialization can have negative effects, and while Koch agrees with Newman that a new core curriculum is needed, Ball State's core would return to elements
of the traditional liberal arts overview. Businesses want trained, occupationally oriented people but they also want "whole people". A graduate of Ball State is likely to change jobs three to four times in his life, and with the rapid changes in society, a job started immediately after graduation may be radically different ten years later. Overspecialization could leave the employee blind to changes and ways to meet them. Somehow the former student must be able to perceive and anticipate the changing needs of society and his occupation. A sufficient background in the liberal arts will help him to see the whole, helping him and his company to adapt to new needs.

The proposed new general studies program emphasizes learning skills, communication, values clarification, problem solutions through knowledge, cooperation, and personal goal identification through core requirements of eight hours of both English and history, four hours of both mathematics and speech, and twelve hours each in the physical sciences, the social sciences, and in the humanities, a four hour physical education requirement, and finally four hours of "integrative and capstone learning" which will be designed to bring cohesion to four years of university experience. These requirements will, according to Koch, build that "whole person" and teach him "how to think" in relation to his eventual job. The assumption is that the graduate will primarily have the specialized skills that a specialized job demands, but he will also have, albeit to a lesser degree, a wider field of vision. One must wonder if this restructuring of the general studies curriculum can significantly and positively change the perspective of graduates. This question will be addressed in the following section.
Failures of the Present and Proposed Paradigms

The actual availability of a particular job and how that job relates to a university education must now be addressed. Since World War II, the premise for getting a college education was that an education would guarantee the landing of a job in the industrial economy. Recent studies have found that a college education will not guarantee a job. College students, as shown above, were once a scarce commodity but for a variety of reasons, higher education is now available to the mass public. College graduates are being produced at a faster rate than the production of total jobs. The transition from school to work, which was once easily negotiated, is now perilous for the college graduates expectations and self-esteem.

There are countless cases of taxi drivers with MA's or college graduates who took blue collar jobs in factories for lack of better job offers. Studies show that possibly as many as 27% of the people in the United States are "over educated" for their work. A Special Labor Forces report in 1973 reported that "one-third of all college graduates surveyed were employed in occupations where there was no relationship between the skills and competencies developed in college and subsequent job responsibilities." All the same, college enrollments have not decreased significantly except for the expected decline due to the tailing off of the "baby boom."

If jobs are not guaranteed by a college degree anymore, there must be some other incentive for spending the money and time in the pursuit of a diploma. It would be nice to believe that many continue to enter and complete college motivated by those aspirations of Provost Koch and his general studies proposal. The truth is however, according to a study completed in the late Seventies, that while 73% of the college graduates
surveyed admitted that courses in the liberal arts had increased their general knowledge, only 43% actually responded that such courses have increased their ability to think clearly. The majority felt that, all in all, learning how to learn was much less successful in their post-graduate lives than the credentialing that college degrees offer. While jobs are scarce for college graduates, those same jobs would be next to impossible to land if they had none of the credentials that a college degree does offer. Work related skills or knowledge are seen as being moderately helpful in the real world, but credentializing is seen by college graduates as the most substantial contribution of their college career.

The consequences of the trends followed since WW II present some problems and inconsistencies in higher education. As pointed out earlier, the foremost aim of higher education today is to train youth for entrance into the labor force, not to broaden intellectual horizons. The present economic system really does not want a corps of free thinking liberal arts graduates, but wants technically competent manpower. The extent to which higher education, can train students for professional jobs, however, is severely limited by changes in the job market itself. If students change jobs a number of times in their lives, and job descriptions themselves are in constant flux, no one can talk realistically about professional-occupational training.

Professional-occupational training is based on a myth, a myth which is promoted by the business community to save themselves training time and costs. They, in their myopic outlook, believe the university can and should provide this. Thus, business is provided with a trained labor force at public expense rather than at their own private cost.
A core requirement of various liberal arts courses plus a "capstone course" is purportedly enough to allow the student and future employee to look around, perceive trends, and adapt himself to changes beyond his control. With the emphasis remaining on professional occupational training, it seems naive to imagine that a few hours smattering of introductory courses in general areas can build that "whole" character needed for truly effective trend analyzing and prudent decision making. This is not a significant departure from the current curriculum. With few exceptions, it only promotes a slightly more rigid application of the old general studies requirements. Introductory mathematics or speech courses taught by the same old professors with the same old lesson plans cannot even begin to attain such lofty aims as "values clarification" or more refined "learning skills". It is inconceivable that one course of "integrative and capstone learning" could extract some sense and cohesiveness out of the culmination of scores of various courses, each with their own specific area of investigation and few with the idea of the "whole" person in mind. This proposal is nothing more than pap designed to give the semblance of Ball State's commitment to building the well prepared, well educated person of the 1980's and beyond.

The real failure in the above models, the specialized professional-occupational model, and the similar model which includes a core liberal arts curriculum, is that they are invariably oriented towards the job market, a market which is already flooded. The university as it exists today lures people with promises which cannot be delivered. It is made to look as if there are real opportunities for students in their field of interest when the most that can be gained is a diploma. This is the credentialing part of all hitherto existing education which may allow
the person some job in some field, but cannot really guarantee satis-
faction in the working world, and fails to deliver even rudimentary satis-
faction of an intellectual or spiritual nature. This is a tragic
failure and a betrayal to the millions of college students nationwide
and the 18,000+ students who attend Ball State for whatever reason.

The Contemplative Model

Under no circumstances is the university obsolete as an institution
of learning, nor is the university powerless to bring positive benefits
to the economic well being of the community. It is apparent, however,
that new directions must be set for the university if it is to be re-
sponsible to the welfare of the individual and the community. The University could be more responsive to this end by separating itself entirely
from the wants of the business world. Obviously no one can gaze into
a crystal ball and identify the needs of society decades into the future.
By the same token, no course nor system of courses can realistically
attempt to give someone the factual and specific knowledge he will need
for a particular job as he is funneled into that area. What the university is doing is second guessing the trends of the business world. This
paradigm is maintained by the business world for it is they who primarily
stand to profit from the high aspirations of those who would hope to receive the training they have been led to believe will attain them
success in the high technology future. If the university were to forego
professional-occupational training in favor of an innovative, contempla-
itive model, the entire nation could tap in on an unprecedented human
resource.

President Bell feels that it is very unlikely that Ball State would
every change over to a liberal, contemplative model orientation. To do
so, would entail a total change in clientele. This assumption must be analyzed to see what it really means. Ball State's appeal is to those families who have never had the benefits of higher education. These people are job oriented, not intellectually oriented. They are also not blessed by and large with the economic status that affords a life of leisure. They want their children to have a better position in life than they themselves had. A college education, seen, correctly or not, as a higher form of vocational training, is the crucial first-step on the path of upward social status, and Ball State is cost-effective to the attainment of those ends. The result is that thousands of students come here looking for a degree to be a means to an end while ignoring education as an end in and of itself.

By deemphasizing 'jobs' and stressing liberal, 'thinking arts', Ball State would lose thousands of mediocre scholars and their parents not so mediocre dollars. Only students primarily interested in learning would remain, while others would be potentially drawn in. The size of the over all population of Ball State would decrease drastically, while the average "quality" of students would rise notably. The pride Ball State felt in offering any and everyone an education could be transferred to pride in academic excellence. Those disaffected thousands who might feel that college is necessary for raising their standard of living might still attend once they were committed to learning to think. Those still in school lacking commitment would fail and be forced to drop out.

What results from this is a significantly smaller population with the credentials so beloved by the business community. As administrators have already admitted, a core requirement of liberal arts should build the "whole" person and offer him the ability to adapt himself to changing
circumstances. Since the greatest degree of occupational training occurs "on-the-job" anyway, employers would have no sensible reason not to hire, from this smaller pool of educated people. Indeed, with four years of intensive thinking, identifying, analyzing, and synthesizing in all aspects of the world, at the graduate's disposal, the employer would be gaining a talented, persevering, well-rounded individual who could pick up new skills quickly and help to steer the business in the most beneficical directions. No longer would businesses be restricted by the "technically competent human imbeciles" who, through their inability to see outside their own specialized field of study, have steered society into problem situations and dead-end solutions. Innovation would become the hallmark of the businesses who made it a practice to hire such "whole" people.

The availability of this corps of liberal, free-thinking people to the business world would have some far reaching effects on the social and business community. Armed with an ability to perceive and to conceive of nonlinear causal relationships, employees could begin to view their companies' actions in relationship with the entire human and natural environment. If used correctly, such abilities could benefit mankind in general, but used only to maximize the profit standing of the company, the results could be disastrous. For example, those businesses with little moral concern for the human condition or the state of the environment would lose the most socially conscientious contemplative model workers, leaving the business in the hands of the most unscrupulous and cynical employees. These businesses would likely make it a practice to hire only those interested in profit and expediency. While this is already true to an extent today, it is not prerequisite. In this future such practices would become virtually mandatory if the offending company
found it most practical to continue to offend. Environmentally and socially harmful businesses would become more efficient and therefore more harmful. Disillusionment and resignation might result among the ranks of the humanely enlightened who believed they could make a real difference in the more sordid side of the business world.

Through this scenario the shortcomings of the aforementioned liberal, contemplative model curriculum and the failure to bring a paradigm shift to business and society becomes apparent. Obviously something would be missing in this reform. One could even envision a reinfiltration of business oriented values and profit motivation into the general curriculum through business sponsored scholarships, "free" classroom materials, awards to administrators and professors, and hiring practices within the business community. The much needed change could turn sour and begin to resemble past practices.

The New Paradigm - The Ethics Alternative

What is missing from the above proposal is a fundamental center from which all studies must emanate, a center which gives meaning and purpose to the studies. Ethics must become the hub of the wheel of learning. In the words of Gus Turbeville, President of Emerson College

"...the ultimate justification for any institution is its stress on the responsibility that knowledge brings ... Getting the proper mix of the physical and spiritual is what life is about, and our colleges must accept the responsibility of helping their communities get values in perspective." 37

And to quote E. F. Schumacher,

"Education which fails to clarify our central convictions is mere training or indulgence. For it is our central convictions that are in disorder, and, as long as the present anti-metaphysical temper persists, the disorder will grow worse. Education, far from ranking as man's greatest resource, will then be an agent of destruction, in accordance with the principle 'corruptio optimi pessima'." 38
Schumacher proceeds from the notion that the growth society is mindless, ultimately destructive, and void of spiritual convictions. If there is no higher value than economical expediency or monetary profit, then the system is corrupt to the heart and bound to fail.

For this reason, if for no other, the success of a growth oriented high technology future in the nation would be ruinous, and any educational orientation of a university which in one way or another either actively or passively encourages such a future is at best an exercise in futility and is at worst a cohort in the subsequent subversion of humankind. All of the previous ills of industrial society would be revisited on the nation albeit in more subtle and more dehumanizing forms. Rather than being a slave to a production line, the computer would become the programmer and human beings the programs. In the words of David Adelstein, a reputable British educator:

"It is a sad paradox that theology is nowadays taught in an enlightened spirit of critical inquiry, while scientific knowledge is leadenly imparted as though it were theological dogma." 39

The goal is not to preach denominational tenets. It is questionable as to whether Christian, Buddhist, or any other "namebrand" ethic, no matter how true or divinely inspired, could be effective solely through a direct infusion in classroom lectures and discussion. Typically, this would be met with a great deal of resistance from atheists, agnostics, and a veritable menagerie of church groups all insisting that the "right" way of viewing God (their way) was being unfairly ignored. To quote Adelstein again,

"Thus what is required is a new education for the whole man; one which rejects the compartments of the technocratic model and transcends its functional requirements, but at the same time exposes the false sense of independence of the classical tradition and redirects its theoretical heritage, one which does not inflict its
values from above but consciously adopts them through independent and critical study, intimately entwined with practical activity." 40

The answer to this lies in what the eminent naturalist Aldo Leopold termed "the land ethic." According to Leopold, there are three categories of ethics that man should live his life within. The first two have been largely accepted by man; religion as a man-to-man ethic, and democracy as a man-to-society ethic. The third, however, is "a yet undeveloped ethical relationship between man and his environment." 41

The student must spend an appropriate number of hours studying natural systems both through book and in-field knowledge. This should enhance an appreciation of the marvelous complexity and interdependence found in nature. Attempts should be made to show the inherent metaphysical essence of nature and man in nature. The consequences of man's actions must also be stressed.

Each student must then be required to actively participate in a labor-intensive community project which would emphasize the inseparable bond between man and nature. This could take the form of a university food production project, waste utilization projects, or renewable energies projects which could benefit the entire community. Through hard work in relevant projects coupled with an active knowledge of man in nature, a better understanding of the purpose for man's existence could be fostered. The ethics of stewardship would be nurtured and perpetuated.

To quote Eugene P. Odum, the great ecologist,

"As human population growth, technology, pollution, and demands on finite resources begin to tax the earth's capacity, the theory that man and environment are a whole must be put into practice if man is to avoid self-destruction. 'Holism' in terms of planning and management requires a fundamental change in man's attitude toward his environment and, most important of all, an ethical basis for the necessary legal and economic incentives." 42
The student, of course, would still get a liberal contemplative education where such subjects as art and literature (to aid intuitive thinking), dialectics (to encourage logical deduction), and social sciences (to emphasize problem identification) would be stressed, but all would be taught in the context of stewardship. They would see the world as a collection of systems, all interconnected. Within these systems, students could begin to identify problems and become aware of places where small changes could affect a correction of the entire problem. The identification and correct manipulation of these "high leverage points" could lead to great advancements for society. The university would become a wellspring of functional citizens eager to tackle the most pressing problems of all aspects of society and capable of making the most prudent decisions and taking the appropriate action to solve those problems.
Conclusion

It is beyond the scope of this thesis to identify in detail all or even most of the consequences of the adoption of a new paradigm curriculum at Ball State. Only certain assumptions can be offered, and many aspects of such a transformation will remain unexamined. The following scenario is not meant to be conclusive. It should, however, indicate a general idea of some of the more basic elements of a societal transformation caused by the aforementioned adoption of the new paradigm curriculum at Ball State.

Initially this system would not appeal to the upholders of the status quo. The political and economic community would be typically suspicious of such a radical departure from the norm of higher education. For this reason academic standards would have to remain consistently high, and community projects promoted by the university would need to be very functional, effective, and reliable. The university would have to show a high rate of success in its new endeavors. In addition, the administration and students alike would need to stress a cooperative role with local businesses and government, offering university services to any group who might show an interest. A high success rate in these undertakings would establish credibility for the university over a period of time. The university must establish that their new curriculum is not an ivory tower celebration of self, but a practical, effective, socially responsible means of addressing many of societies' problems.

As local businesses begin to realize the potential of Ball State graduates, and begin to enjoy the benefits that would result from their employment, news of this would spread across the country. Graduates of the new Ball State would soon be in demand by institutions, agencies,
government offices, and corporations in all regions of the United States. As successes became more obvious, frequent, and certain, other universities would copy the "Ball State method", furthering the spread of the new paradigm.

At first such graduates would assume lower and middle management roles, or be employed as consultants, but through hard work, sound decision making, the course of time, and additional recruits, these "new paradigm" employees could begin to control the actual decision making apparatus of business and government. Some would opt to start their own business ventures, while others would feel the urge to work shoulder-to-shoulder with blue collar employees. Through osmosis the traditional worker would begin to understand and accept the new paradigm and adjust his productivity accordingly.

Ball State graduates would be living examples of the new paradigm man in the community. Their lifestyles around the home and in the neighborhood would instill a new community spirit. After a time locals would begin to follow the examples characteristic of their "new paradigm" neighbors.

The transformation would undoubtedly be a long and problematic one, but a synergistic "dominoe effect" would begin to take hold all over the country. A general renaissance of spirit would occur, and a new age of enlightenment would be ushered in. This quiet technological revolution, a revolution of appropriate technology, as its industrial goal, would come to be seen in the world as a sensible alternative to the quest for "more" and the inevitable wars that such a quest creates. A greening of earth would be a welcome relief from the distresses and horrors that is the history of man. The global community would become a reality.
Higher education can act as a catalyst for social change. It can create needs but it can also meet the needs of society. The direction in which an institute of higher learning leads a community and the type of social change it promotes hinges on the orientation of its administrators, teachers, and students. A conservative outlook will by its very nature perpetuate the existing conditions of a community. Radical alternatives challenge old and new problems at every turn.

Universities can maintain the status quo and accept the high technology solution for Muncie's problems along with all the incongruities and problems already cited. Universities could otherwise opt for a wise, innovative, realistic, functional, and above all truthful new path designed to enhance the human standing all over the world. The problems are many and the answers are certainly not easy, clear, nor conclusive, but the opportunity for finding a better way beckons.
Notes

1Personal interview with Charles Stroh, President of Muncie-Delaware County Chamber of Commerce, 15 December 1982.

2Ibid.

3Ibid.

4Ibid.


7Ibid., p. 99.

8Ibid., p. 99.

9Stephens, p. 38.

10Personal interview with James Koch, Provost and Vice-President for Academic Affairs at Ball State University, 8 February 1983.

11Personal interview with Robert P. Bell, President of Ball State University, 9 February 1983.

12Koch

13Bell.

15Ibid.

16Stroh.


18Bell.

19Stroh


21Ibid.

22Koch.
23 Koch.


25 Koch.

26 Newman.

27 "Slim Pickings for the Class of '76", Time, 29 March 1976, p. 46.


32 Ibid., p. 12.

33 Anderson, p. 99.

34 Bell.


37 Gus Turbeville, "Colleges and Morality, Putting our Values on the Wrong Things," Vital Speeches, 1 December 1975, pp. 122-123.


40 Adelstein, p. 320.


Bell, Robert P. President of Ball State University. Personal Interview. 9 February 1983.


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"Who Needs College?" Newsweek, 26 April 1976, p. 61.