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ABSTRACT

This essay presents the major ideas of the book "The Work of Nations: Preparing Ourselves for 21st Century Capitalism" (1991), written by Robert Reich, Secretary of Labor in the Clinton administration. Reich describes the development of the symbolic-analyst as the new citizen in the economic order, utilizing the basic skills of abstraction, system thinking, experimentation, and collaboration. The two other classes of citizens are the in-person servers performing face-to-face tasks and routine producers performing low-level computations and repetitive tasks. All citizens affect the international corporate webs of the economic system. The essay cites several problems with Reich's vision of the economic world: (1) the financial costs to upgrade social services and education; (2) the stratification of the social classes and the increased emphasis placed on a technical education as compared to more aesthetic pursuits; and (3) the incomplete vision for change offered by Reich. Bilingual education and cultural awareness initiatives were omitted from the vision for change as the world becomes more diverse. Curriculum recommendations for the future are suggested. (EH)

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Education for 2001 and Beyond

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Many of us here today already are familiar with the name Robert Reich. He is our Secretary of Labor. His recent book, The Work of Nations: Preparing Ourselves for 21st Century Capitalism (1991) expresses an economic and educational vision of the shape of things to come. Reich draws his theory from looking at the history of capitalism and noting the way it is evolving. One of the most important changes is the direction the, so called, developed world is moving in. Nations, like the United States, are rapidly moving from a high volume producing orientation to a high value producing orientation. That is, many corporations are no longer looking to the American work force to produce a mass quantity of objects, as they did in the past. Instead, workers are needed to produce valuable ideas. This is the fundamental element that drives Reich's theory of education. As routine manufacturing jobs diminish, jobs requiring analysis will increase.

According to Reich, what the country needs today is to step-up its efforts in developing a new type of individual. The new national hero, i.e., the new key to economic success, in Reich's work is the symbolic-analyst. It is this new breed of individual that will guide the economic future of



the nation into the year 2001 and beyond. High value industries and services are taking over the market place, and they need high value producing personnel, i.e., symbolic analysts. Jobs such as financial analysts in New York and lawyers in Washington are some of the positions that are expanding. Tomorrow's workers will need to be able to think and act quickly in a world that operates at the ever increasing speed of a microprocessor. One's standard of living will depend on what one can contribute to the world economy.

Reich points out that the symbolic-analysts of today have some interesting things in common. They were all exposed to educators who were attentive to their academic needs, partly because of small classes. They all had access to state-of-the-art laboratories, interactive computers, language laboratories, and high-tech school libraries. Also, the education of symbolic-analysts did not stop at school. Their parents took an active interest in their education. Parents took their children to museums, cultural events, and gave them music lessons. And if a child got ill, s/he was given prompt and adequate medical care.

These aspects of symbolic-analyst nurturing imply that we need to improve a number of the social programs that we already have in place. We need a comprehensive welfare state that provides the necessary health care, social services, and education to produce the number of symbolic analysts required

to compete in the changing world economy. Without proper medical care, many students will not be able to achieve membership in the symbolic-analyst class, no matter what. Services such as day-care, Headstart, and student loan programs also are necessary to create the large number of symbolic-analysts required in the next century.

Reich's analysis has important implications for the future of education in this country. We must restructure our schools so they will refine four basic skills: abstraction, system thinking, experimentation, and collaboration. Abstraction is at the very center of symbolic analysis. It is the capacity to discover "patterns and meanings," the skill of abstraction is the ability to shape raw data into something workable. System thinking is seeing reality as a system of causes and consequences. This is abstraction taken a step further to see the interconnections, the relationships, between problems. Experimentation allows one to understand direct relationships between causes and consequences via self-guided exploration. Lastly, collaboration is an idea that often is neglected today. The school of the future must emphasize the importance of cooperation and communication - not just in word, but in deed as well.

In short, "The symbolic-analytic mind is trained to be skeptical, curious, and creative." (p.230) We must teach our youth how to think, not merely how to deal with repetition in

the work place. Libraries, laboratories, and computer instruction is just part of the story. Classes must be kept small, so more schools will need to be built. More teachers must be trained - and in a way that they can nurture budding analytical minds. Indeed the whole notion of filling-up kids with facts must be abandoned. After all, the way technology and science are moving, many of the facts that are learned today will be replaced tomorrow. Training symbolic-analysts requires hands-on, problem solving exercises that will prepare them for the future.

These aspects of formal education will also benefit the other two classes that Reich writes about: in-person servers and routine producers. In-person servers perform person to person tasks, like taxi-drivers, nurses, and secretaries. While routine producers perform low-level computations and repetitive tasks such as data entry. These jobs are impersonal much like the assembly-line jobs of old. Although these two classes perform many simple and repetitive tasks, an education of the symbolic-analyst type will not hurt them. In fact, such an education will serve as groundwork for adult continuing education sometime in the future.

The real importance of a change in emphasis in formal education from memorization to analysis is found in the informal education of the symbolic analyst. Reich writes of symbolic-analytic zones. These are places where symbolic-analysts congregate. For example, engineers assemble in the

San Francisco area, lawyers convene in the District of Columbia, and financial analysts gather in the New York area. This phenomenon brings two things to bear. First, informal education goes on in these zones as people converse on the golf course, in the gym, or at the tavern. Problems and possible solutions get knocked around and through this ongoing conversation symbolic-analysts further their growth. Second, people are needed to support these zones - namely in-person servers and routine producers. After all, someone has to keep the golf course in shape, do the books for the gym and refill our beers at the local tavern. To think that these tasks cannot be improved through a more analysis oriented curriculum is foolish. A golf course is made better by an analysis of the player's desires. A good bookkeeper is one that can analyze the figures she deals with. And a good on-top-of-it bartender is much more appreciated than the dullard. In short, the education that emphasizes abstraction, system thinking, experimentation and collaboration can positively effect all levels of society clustered in and around the symbolic analytic zones.

In Reich's vision, all levels will either directly effect the international corporate webs, like the symbolic-analyst, or indirectly effect them, like the in-person servers. The shift from a high volume to a high value society will not be easy, nor will it be inexpensive. A vast amount of investment is necessary, investment not in the

corporation directly, but in people who will form the support for the international corporate webs down the road. The wealth of a nation is no longer tied to the large corporations, but to the value that its citizens can add to the world economy.

There are, however, several problems with Reich's vision. First, there is the problem of financial cost. The cost of such an upgrade in social services and education will be significant. However, if we can divert some of the money from pork barrel projects and defense programs to education, perhaps a solution to the problem is close at hand.

Second, there is the problem of stratification in what has been called a "liberal's nightmare." On one hand, the goal is to educate every child in the same way, so that every one has an equal chance of gaining access to the symbolic-analyst class. On the other hand, Reich is faced with a societal structure resembling Plato's Republic. Different tiers in the structure tend to replicate itself and social mobility is greatly impaired. In addition to this, there is no guarantee that the upper classes, the upper 20%, will want to support a large welfare state that must bolster the living conditions of the lower 80%. Nor is there any guarantee that the lower 80% will want to put their shoulders to the wheel for an upper 20%.

Indeed, the upper classes might after a time forget who



keeps them there and begin to erode the welfare state to fortify its own well-being. The evidence for this possibility is widely available in the 1980s issues of the Wall Street Journal. The raping and pillaging of the nation by such an elite may indeed bring about the uprising that occurs in Michael Young's 1958 fable, The Rise of the Meritocracy. In Young's tale, the revolution of the lower classes against the meritocracy happens in 2033. Real possibilities for such a revolt exist in any stratified society. The problem of maintaining a cohesive whole within a stratified society continues to plague theorists like Reich 2500 years after Plato.

Another concern is the emphasis that Reich and other writers, who use more extreme military analogies, put on a technical education. Although there is something to be said for such education, there is a great deal to be said for the spiritual and personal welling-being that comes from the study of such "uneconomical" pursuits as art, literature, and philosophy. To Reich's credit, he does indicate that the training of the symbolic-analyst is greatly enhanced by such pursuits. We should not loose sight of this. Other writers, such as Marshall and Tucker in their book Thinking for a Living, do not pay as much attention to this as perhaps they should. Still other writers seem to leave liberal studies mangled and mortally wounded under the steel wheels of the trains transporting troops to the economic front. For

example, a recent advertisement for the Mobil Oil Corporation (NYT 9/9/93) entitled "Teachers: Our best and last defense" sounds a great deal like World War III propoganda. The ad uses phrases like "global battlefield" and "America's young technology troops," to persuade the reader that the purpose of education is to reinforce one's economic armor only. Such efforts loose sight of the truly liberating.

Yale historian Paul Kennedy, in his recent work Preparing for the Twenty-first Century, writes about a need to understand a larger sense of education. According to Kennedy, 21st century education entails more than technically retooling the work force, it also includes a necessity to develop an understanding of

why our world is changing, of how other people and cultures feel about those changes, of what we all have in common - as well as what divides cultures, classes, and nations. (p.341)

The limiting of education to mere technical prowess, prejudices us against the skills we need to understand these things and to improve our global human condition. As ethnic diversity grows, such skills become more and more important. Indeed, such diversity needs to be considered in any plan for education in the future. Bilingual education and classes that promote understanding between cultures certainly are necessary today and will continue to be necessary into the next century.

In addition, it is important not to forget about the plurality of things in life that make it interesting. For

only a very small few, even among the upper 20%, is economics a sole motivating factor. For most of us there are other things in life. We think about our assets, but we also think about our loves, that is, about what makes our life worth living. Education should help us pursue plurality: not only for economic progress, but for many of life's other processes. In fact, if what is called for is an education for work, then what is needed is an expanded definition of work. Richard J. Barnet makes this point in a recent article when he says,

There is a colossal amount of work waiting to be done by human beings - Building decent places to live, exploring the universe, making cities less dangerous, teaching one another, raising our children, visiting, comforting healing, feeding one another, dancing, making music, telling stories, inventing things, and governing ourselves. (Harper's 9/93, p. 52)

It is certainly difficult to argue with this. Barnet continues,

But much of the essential activity people have always undertaken to raise and educate their families, to enjoy themselves, to give pleasure to others, and to advance the general welfare is not packaged as jobs. (Ibid.)

In short, we need to consider current economic factors, but we should also consider the many other aspects of life. Such plurality promises to be as great or greater in the coming decades.

A fourth, and final, problem with Reich's vision for education is that it is not very complete. Unfortunately, The Work of Nations does not go into great detail about restructuring education in this country. However, we can see

that education for the 21st century should involve several aspects. The curriculum should attempt to expand the four basic skills of abstraction, system thinking, experimentation, and collaboration. In addition, we would have to expand the role of government to support education, not only in the sense of more direct financial support for the schools, but also indirectly in terms of better health care and living conditions for young people. Also, more community involvement is needed to help educate children outside the walls of the school and make neighborhoods safe. To these considerations we can add: education for the year 2001 and beyond should promote "life skills." Let us not forget, in our scramble for the large slice of pie we enjoy, how to savor it when we have it.

Perhaps after the focus on NAFTA and health care reform has passed, we will see a resurgence in action toward education. At this point however, the Clinton administration, of which Reich is part, has been as lame as its predecessor. Indeed, a great many details need to be worked out for education in the next century, and there are many things to hope for in such a plan. At the top of the list is that lives will not be lost in the rhetoric of war, economic or otherwise. As Reich repeatedly points out, "It is not what we own that counts; it is what we do." (p.301)