

# *The Future of Hawaii: Higher Education*

*By James Ogilvy*

**H**awaii's future may well rest on higher education. With an annual cash flow of close to \$1 billion, Hawaii employs nearly 6,000 people. The University of Hawaii is among the largest institutions on the islands—both as an employer and as a provider of services. But, more important, the services provided represent an investment in the future—most of Hawaii's future employees, entrepreneurs, professionals, and legislators will gain their higher education through the University of Hawaii system campuses.

The NEA-affiliated University of Hawaii Professional Assembly (UHPA) believes it is no longer sufficient for any union to restrict its attention to wages and terms of employment. The UHPA believes that the responsibility of the union to its members extends to the responsibility to provide students with quality education. UHPA's mission encompasses a concomitant responsibility to the broader community around issues that involve academic research and a high level of community service.

The UHPA asks what it will take to deliver quality higher education tomorrow. Part of the answer depends on further questions: Education for what? And for whom? And by whom? And with what tools? In a rapidly changing world, questions about the future are by no means easy to answer.

When trying to answer the question, education for what?, one confronts immediately a major uncertainty: *Will Hawaii's future remain as heavily dependent on tourism as it is today?* Tourism and tourism-related construction account for almost half of Hawaii's economy and that dependence isn't good, say critics. Why? First, most of the jobs in the tourist industry are relatively low-skill, low-wage jobs. Second, with so many eggs in the single basket of tourism, Hawaii's economy is dangerously vulnerable to swings in tourists' preferences. Partly as a result of Hurricane In'iki, and

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partly in response to sluggish economies, tourism in 1992 was down 5 percent from 1991, a year when tourism was already depressed by Operation Desert Storm. The reliability of tourism depends in part on the pocketbooks of potential tourists.

The health of the economies of southeast Asia, mainland United States, and Europe are beyond the control of planners in Hawaii. Uncertainties about general economic conditions beyond Hawaii's shores, combined with uncertainties about the future of Hawaii's own economic base, make it difficult to predict the context in which education in Hawaii will take place. The question—education for what?—lacks a single answer that can be given with certainty.

Since the mission of the university and general economic conditions are both subject to so much uncertainty, the planning of higher education must adopt a method that takes those uncertainties into account—alternative scenarios satisfy the demand imposed by future uncertainties.

With this in mind, the UHPA commissioned a study using scenario building as one way to “see” higher education in Hawaii. Scenarios can help overcome scholarly anxiety about the lack of reliable evidence regarding the future, for scenarios do not claim to be predictions. The point is not to gather evidence for some induction about a most probable future. The point is rather to entertain a number of different possibilities to better make reasoned choices among them. These scenarios are intended as a tool to promote discussion and debate over the future of higher education in Hawaii.

Underlying each of the scenarios are some predetermined elements—present and future conditions that will persist across all scenarios: Hawaii's geography, its demographics, its politics, the tourism industry, the unfolding of the information revolution around the world, the role of the military, and, finally, Hawaii's location at the hub of the vibrant economy of the Pacific Rim.

After reviewing these predetermined elements, we will discuss the key uncertainties that cleave the scenarios one from another: the

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mission of the university, and the health of the regional economy of the Pacific Rim.

**Predetermined Elements**

*Geography, Climate, and Culture*

So obvious that many residents may cease to think about it, Hawaii's geography imposes a unique set of opportunities and constraints on educational planners. As an archipelago of tropical islands in the middle of the Pacific Ocean, the University of Hawaii enjoys a climate far more pleasant than most of the world's great universities.

But Hawaii's blessings can be a curse when it comes to education. How does a teacher hold a student's interest with today's delights so apparent, tomorrow's rewards so dim? For large parts of the year the climate in New Haven, Oxford, and Heidelberg is enough to drive students into the library—in Hawaii, the climate is sufficient to pull students out of the library. Given the seriousness of traditional intellectual pursuits and the sensuousness of everyday life in Hawaii, is there any hope of combining the two without compromising one or the other?

This question cuts different ways depending on whether one is a resident of Hawaii, or, say, a prospective faculty member being recruited from elsewhere. Hawaii's residents are accustomed to its climate. For them, the alternative to the library is not the beach, but a job or jobs that would be worse than the career they could pursue with a university education.

The economic plight of many locals, who are forced to work long hours to afford Hawaii's high cost of living stands in stark contrast to the image of paradise that brings tourists to Hawaii. For non-locals who are not used to Hawaii's climate, fantasies of a tropical paradise, and fears about falling out of the mainstream, have a negative impact on their expectations for participating in quality

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scholarship. Tourists come to Hawaii to escape their cares, not to research them.

To put it very bluntly, non-locals wonder whether it is possible to take higher education in Hawaii *seriously*. This bluntness is necessary. In none of the interviews conducted as part of this study did anyone allow himself or herself to state this obvious question. Yet this question underlies many of the stated concerns. For example, the flight of top graduates from Hawaii's secondary schools to universities on the mainland, or the University of Hawaii's difficulties in attracting and retaining top faculty.

As long as we ignore the obvious, there is a danger of wasting resources in trying to make higher education in Hawaii into something that it cannot and therefore should not be. The University of Hawaii will never be Harvard, nor should it be. The system of higher education in Hawaii should build upon its unique strengths to become a great system whose greatness is measured not by some set of standards equally applicable everywhere, but according to standards that are appropriate to the needs of Hawaii's citizens and to their unique strengths.

Specifically, Hawaii is unique not only with respect to its climate but also with respect to its demographics. In focusing on geographical and demographic aspects that are particular to Hawaii, we need not accept lower standards for higher education in Hawaii. To the contrary, a case can be made that the mixing of different cultures is one of the leading challenges facing the world today; that the United States leads all other nations as a "mosaic of cultures," and that Hawaii leads all other states in making multiculturalism work.

Pursuing this argument to its logical conclusion, Hawaii is not only a microcosm for one of the most pressing issues in the world; Hawaii should count itself in the vanguard in coping with multiculturalism more successfully than most other societies. Perhaps Hawaii's experience of multiculturalism is its comparative advantage in today's global economy.

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climate, a case can be made that the frequent failures of Prussian, it's-only-good-if-it-hurts pedagogy can be attributed to mistaken views about the use of the stick rather than the carrot in education. Education does not need to be as painful as some missionaries would make it. Learning *can* be pleasurable.

Both with respect to Hawaii's climate and with respect to Hawaii's demographics, the case can be made that Hawaii is different from other places. By attending to what differentiates

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in running education has a lot to do with the size of the public sector in Hawaii, and the challenge of guaranteeing equity across different islands and to the different ethnic groups.

Finally, the power of Democratic incumbents is a function of the revolution of 1954, a watershed reversal of political fortunes that replaced the power of an almost feudal elite with the power of Hawaii's unionized working minorities joined to create a majority. The legacy of this history leaves the union movement and the Democratic Party stronger in Hawaii than in many other states.

This is not the place to defend the present by making explanations based on the past, but it is worth acknowledging conditions as they *are* before asking what they might be in the future.

On the plus side, Hawaii has the advantage of being governable. Unlike Manhattan, or the United States as a whole, the sheer size and complexity of the political/educational system is not so great as to defeat or discourage attempts at control or reform. In Hawaii it should be possible for people of good will—if *there is a will*—to represent different interests gathered around a single table, to discuss their differences, and to make decisions that will benefit everybody. By virtue of its relatively small size, the political process in Hawaii is limber enough to avoid the rigidity and gridlock afflicting many governmental bodies today.

On the negative side, the power and vitality of the public sector in Hawaii can be a threat to educators. People complain that the educational bureaucracy is too much influenced by political patronage; that educational policy is too much steered by political influence; that appointments to key positions in the university are too much subject to pork-barrel politics. These charges are pervasive if not always public. They need airing and addressing.

#### *Information Technology and the Tyranny of Distance*

Yet another predetermined element that underlies all the scenarios is the fact of Hawaii's physical distance from the rest of the world, as well as the distance of each island from the others. Still

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another predetermined element is the juggernaut progression of the information revolution, whose technology promises to overcome distance. There is an odd irony in the way these two predetermined elements relate to one another. On the one hand, Hawaii may have more to gain from telecommunications than other places that are less remote. On the other hand, Hawaii's remoteness may be insulating her policy-makers from the promise of telecommunications.

With some notable exceptions, few of the interviews conducted in the course of our research made much of the promise of telecommunications. Yet telecommunications may have a larger influence on everyday life and work in Hawaii than on other places that are already closely connected to their neighbors.

Granted, it is not easy to anticipate just what the influence of the convergence of computing and telecommunications will look like. Ugly neologisms like "compunications" and "infotainment" do not tell a vivid story. Yet it is as certain as anything can be that computing *will* merge with communications; that our telephones *will* get smarter; that our televisions *will* be merged with our smart telephones; and that the line between education and entertainment will be blurred by educational software and information sources that combine Hollywood production values with the interactive zest of Nintendo games.

Each of these aspects of the evolution of technology will have major impacts on everyday life, education, and work all over the globe. But their impacts promise to be even greater in Hawaii than elsewhere. Precisely because Hawaii is subject to the tyranny of distance, the potential for *distance learning* is greater in Hawaii than elsewhere. Just because Hawaii is so far from the rest of the world, the potential of the information and communications revolution for obliterating the significance of distance has greater import for Hawaii than for most other locations.

The sky is not falling. It is filling up with microwaves. The vastness of the ocean will be spanned by fiber-optic cables that will

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open what has been called the “vast vistas of the telecosm.” A cataclysmic shift in the technology and economics of communication will take place in the very near future, and Hawaii has more to gain from this shift than most other places. Yet few people in Hawaii are fully aware of this impending opportunity.

*A Majority of Minorities*

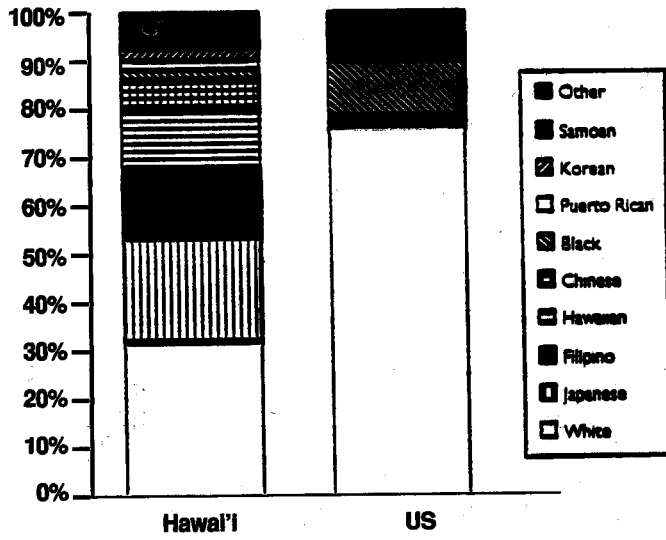
Hawaii’s mix of cultures, like its climate, can be a curse or a blessing. On the one hand there is the danger that ethnic conflicts can undermine consensus. On the other hand, Hawaii’s success at integrating different cultures could make it a showcase for the rest of the world. *How* Hawaii handles its diverse demographics remains an uncertainty that will play out differently in different scenarios. The fact *that* Hawaii is host to many different cultures is a predetermined element that will show up in all scenarios.

While Asians and Caucasians meet in many locations in the United States, Hawaii differs in the role that the indigenous people play in setting the standard for the general society. The integrating aspect of the Native Hawaiian community, under whose monarchy the bulk of Hawaii’s many racial groups began immigrating to Hawaii, is defined by the cultural term, “local.”

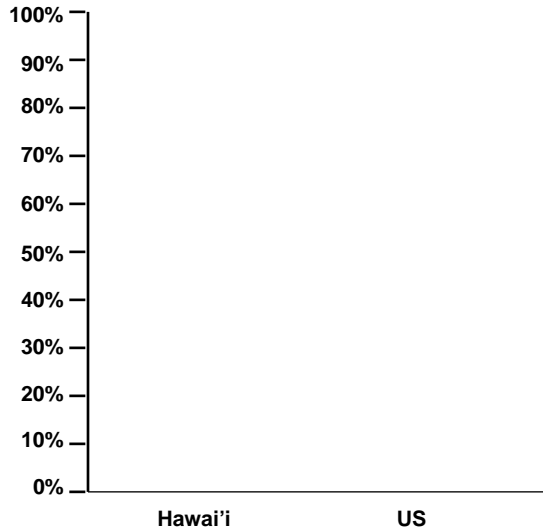
Locals have primary identification with Hawaii and are characterized by a distinctive contemporary culture consisting of features contributed by plantation immigrants fused to a Native Hawaiian base. All Native Hawaiians and the majority of other Hawaii born people are popularly considered local.



**Figure 1**  
**Hawaii's Majority of Minorities**  
**Compared to the United States As A Whole**



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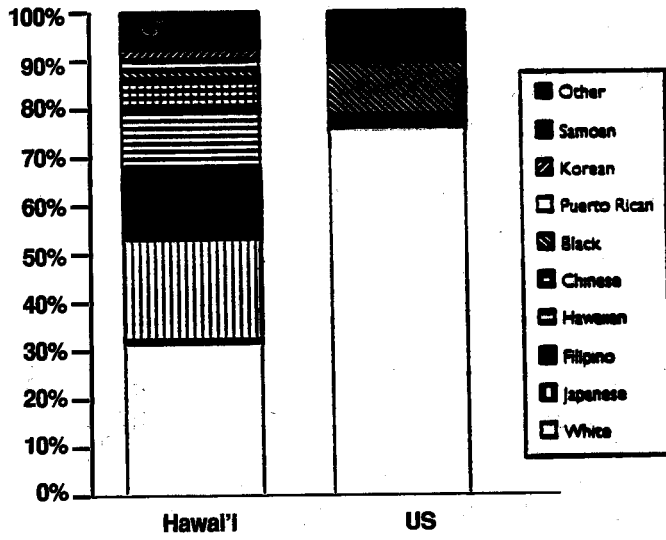
Over 50 percent of all children born in Hawaii are now racially mixed, and it is through this process that the local cultural group is being steadily absorbed into the already racially mixed Native Hawaiian ethnic group. So our scenarios will pay particular attention to the role of Native Hawaiian culture and its influence on the ethnic mix in Hawaiian society.

*Housing, Land, and Sovereignty*

The high price of land and the intense competition for the use and/or ownership of limited amounts of land, must figure significantly in any future for the people of Hawaii and their university system. Availability of land is severely limited, prices are high, and the shortage of moderately priced housing affects everyone from Native Hawaiians to prospective faculty members.

As Cooper and Daws demonstrate in *Land and Power in Hawaii*, the past, present, and future of Hawaii are heavily influenced by the politics and economics of land. More specifically, the lack of easily affordable housing severely limits the university system's ability to attract and hold faculty.

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*The Pacific Rim*

In addition to Hawaii's ethnic and cultural mix of east and west, Hawaii's location also determines much of its economic destiny. The Pacific Rim is the fastest growing regional economy in the world.

In planning the future of Hawaii, the people of Hawaii can take advantage of the vigor of the Pacific Rim's economy *if and only if the "hub" is connected to the "rim" by the spokes of telecommunications technology.*

While Japan and California are both weathering economic recessions at the moment, all signs point to considerable and continuing vitality in the economies of Hong Kong, Korea, Taiwan, Singapore, Indonesia, and southern China.

Spurred on by these newly industrialized countries (NICs), the Pacific Rim economy will almost certainly outstrip the rest of the United States and Europe in growth rates over the coming decades. And Japan and California should rebound from their current recessions sooner or later. Surrounded by these economic engines, Hawaii stands to benefit from their economic growth, but only to the extent that connections between Hawaii and the Rim are established and strengthened.

*From Pearl Harbor to Pax Pacifica?*

Five decades ago, an isolationist America and a changing economic and political power structure in Asia came face to face at Hawaii's Pearl Harbor. The legacy of that tragic moment defined America's relationship with Asia, and continues to ensure that the military will be a driving force in the future of Hawaii.

During the 1990s, four key factors will shape the role and involvement of the military in Hawaii:

The end of the Cold War, and its specific (and well-documented) effect in allowing U.S. military withdrawal (for both budgetary and political reasons) from forward bases in Asia—most notably in the Philippines, Korea, and Okinawa.

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The rapid economic growth of China over the next decade. With 1992 GNP growth estimated at 12 percent, and GNP growth for the decade estimated to average over 8 percent, China will see the size of its economy double over the next decade. The potential social effects may be a growth bubble in China's population numbers, heightened pride and nationalism in China, and an outward-looking, regional aggressiveness driven by the highly competitive Asian economic environment, and the need to capture new and expanding markets. Of course, this booming economy will need resources: human, infrastructural, and financial.

The rapid military growth of China, as a traditionally inward-looking power becomes a more outward-focused "re-

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recently begun to drill for oil in the Gulf of Tonkin, Vietnamese territorial waters.

Given the above key factors, the critical question then becomes the political will of a new U.S. administration to maintain military budgets and a global security posture. However, an increased military role for Hawaii can be politically sold to both “internationalists and isolationists.” It looks good to those who want to scale back U.S. overseas commitments, it boosts the local economy of a U.S. state, as opposed to a foreign country, and yet it may enable the U.S. to protect “vital security interests” in Asia.

This ability to use the military role of Hawaii to appeal to both hawks and doves, combined with Asian political and economic changes, augurs for sustained if not increased military involvement in Hawaii over the next decade. While military budgets may increase in Hawaii, it is not clear that this will lead to higher levels of military personnel in Hawaii itself.

Since the Gulf War, much has been made of the new high-tech military that requires fewer troops but higher levels of educational and technological sophistication. This new type of military will also be present in Hawaii, with an attendant rise in the educational and technological requirements of that military.

Defining the relationship of Hawaii’s educational system to the size, the role, and the needs of this military may well be an important objective during the next decade. And the discussion will doubtless be a two-way street: not only will Hawaii’s educational system serve the needs of military families, but further, the military’s considerable experience and success in training recruits could be a resource in reforming education in Hawaii.

### **Critical Uncertainties**

The factors just listed—Hawaii’s climate and culture, its politics, its demographics, information technology and the tyranny of distance, the shortage of land, and finally, the geo-politics and

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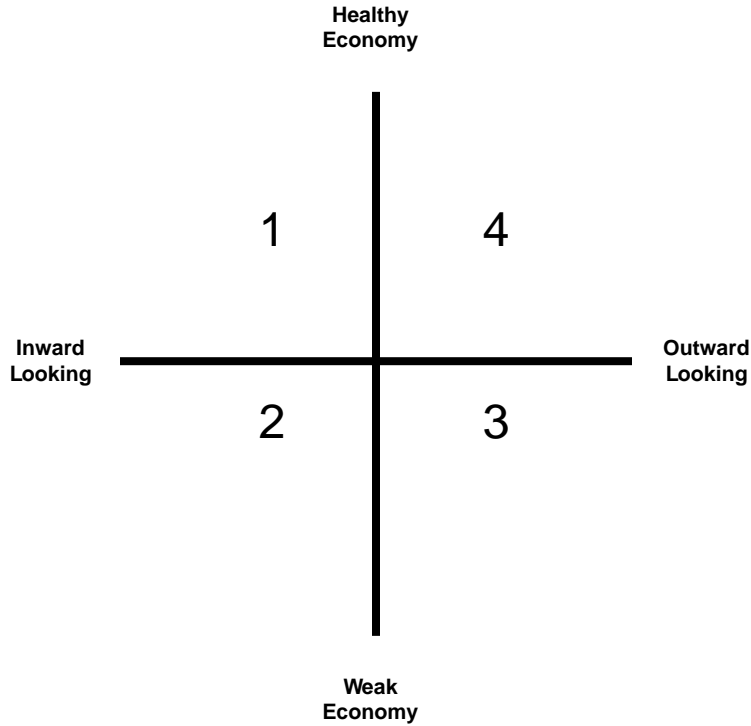
economics of the Pacific Rim—will each play a role in any scenario of Hawaii's future. Like death and taxes, each is certain to persist. But *how* these predetermined elements interact with one another is less certain.

Already in the treatment of several predetermined elements, uncertainties crept into their descriptions. *How soon* will California and Japan recover from the current recession? And *how closely* will Hawaii connect itself to the Pacific Rim? Another profound uncertainty has entered the lives of those who weathered *In'iki*. Had the path of the hurricane strayed just a few miles south, \$2 billion in losses on Kaua'i would have turned into a \$30 billion devastation of Oahu.

While the threat of another hurricane hangs heavy over Hawaii, and affects the insurability of homes and the sense of economic security, this kind of uncertainty does not yield scenarios that are particularly useful or relevant to planning an educational system. Like earthquakes in California, or nuclear war, prospects for episodes of devastation call for contingency plans and preparedness; but they do not generate sets of scenarios in subtle and logical relationships with one another.

In order to elucidate options over which the residents of Hawaii have some control, the members of the scenario development team fixed on two major uncertainties as axes of a logical scenario matrix. These two critical uncertainties—the general health of the regional economy and the degree to which Hawaii will pursue inward looking or outward looking policies—are the axes of uncertainty on which our scenarios are constructed (see figure 2).

**Figure 2**  
**The Senario Matrix**



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Our four scenarios are then driven by logics that are constructed from the four possible combinations of these two critical uncertainties. The first scenario represents the playing out of inward-looking policies in a healthy economic environment. The second scenario illustrates the consequences of inward-looking policies in a weak economy. The third scenario illustrates the consequences of outward-looking policies in a weak economy. And finally, we see a scenario illustrating outward-looking policies in a strong economy.



***By following the method of prioritizing uncertainties, we acquired perspectives on issues deemed most important to education.***

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Note that these skeletal scenario logics do not dictate simple best-case or worst-case scenarios. By building our scenarios from two different axes of uncertainty, we preclude a simple variation up or down a single scale of optimism or pessimism around a base-case prediction. Life is more complex than any single scale can measure. But this two-by-two matrix allows us to strike a balance between the simplicity of a single scale and the complexity of infinite possibilities.

Part of the method for constructing customized, issue-focused scenarios consists in determining the uncertainties that are most critical to the issue at hand. Following days of interviews, and over the course of two separate two-day scenario workshops, a team of carefully chosen participants (see acknowledgements) generated a long list of uncertainties, and then prioritized that list to settle on these two critical uncertainties as drivers of our scenario logics. By building our scenarios around these two critical uncertainties, we are assured that the differences among our scenarios *will make a difference* to the success of any strategy for higher education.

Other scenarios could be constructed. The four scenarios that follow hardly exhaust the range of possibilities for the future. But by following the method of prioritizing uncertainties, then building scenarios driven by the most critical uncertainties, we are assured that the scenarios that result from this method will offer perspective on those issues that have been deemed most important to the future of higher education in Hawaii.

The axes in Figure 2 provide only the basic premises for our scenarios; they drive the core logics of four different “skeletal scenarios.” The following section puts flesh on the bones of those skeletons by filling in each quadrant with a full “story,” a fleshed out scenario.

Knowing the basic principles of scenario development, the reader should be aware of what to expect. These scenarios are not predictions, and they do not cover all possibilities. But they do illustrate the range of significant uncertainties that any strategy for

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higher education must address. Specifically, these four scenarios offer a sense of what success or failure might look like on either branch of forked paths marked *inward-looking* and *outward-looking*. This choice, so familiar to the citizens of Hawaii, and so crucial to the future of higher education in Hawaii, deserves careful consideration.

### **Honoring the Heritage**

*Our first scenario represents “the official future” for many people who consider themselves local. The perspective is inward looking. The economy is healthy. Paradise is relatively untouched by the travails of the outside world. Could it happen? A number of conditions would have to prevail.*

*First, the tourist industry would have to remain healthy, which would in turn require strong economies and sufficient disposable income in the home economies from which tourists travel.*

*Second, the residents of Hawaii would have to remain content to concentrate the economy on tourism, an industry that does not stand still, but regularly undergoes waves of fads and fashions.*

*I ka 'olelo no ke ola; i ka 'olelo no ka make. (With language rests life; with language rests death.)*

The good news in this scenario follows from the respect that would necessarily be paid to all that is indigenously Hawaiian, from Native Hawaiian culture to the geography, climate, and ecology of the Hawaiian Islands. In order not to despoil the bounty of Mother Nature's gifts—and kill the goose that lays the tourism egg—the burgeoning field of eco-tourism would have to be raised to a new art.

From the floor of the ocean off the Kona coast to the center of the rain-forests on Kaua'i, tourists could be exposed to the beauties of nature, and taught what it takes to preserve nature's beauty. There would be an educational curriculum as part of Hawaii's attraction to tourists, in addition to the education of local people to support the tourist trade. Locals learn how to teach tourists the wonders of nature, and as many educators know, one of the best ways to learn

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something is to try teaching it to others.

The bad news consists in the danger that neither Native Hawaiian culture nor Mother Nature can stand quite so much love and respect. Their exposure to the gawking masses might be more traumatic than either can withstand. Watching hula dancers in the hotels of downtown Waikiki, one already suspects the degradation and distortion of native rituals and sensibility. Yet a glimmering of the generosity of the Aloha spirit still comes through.

In the early years of this scenario, the boundless generosity and radiant innocence of the Aloha spirit prevail. As if proving Plato correct in his belief that the truly good man cannot be wronged, Hawaii and Hawaiians allow themselves to be photographed millions of times without losing their souls through f-stopped apertures.

When both the mainland and Japanese economies come out of recession in 1994, hundreds of thousands of visitors demonstrate pent up demand for the sandy beaches and sunshine of the Hawaiian Islands. Part of the renewed enthusiasm for travel to Hawaii is attributed to trouble in Europe. The trade war with France makes the French unusually inhospitable to American travellers. And Germany is in turmoil over the treatment of immigrants who continue to stream from east to west. England seems incapable of digging itself out from deep recession.

What Americans see of Europe on the evening news is not a pretty picture during the early 1990s. The view to the west is far more inviting. So are the currency exchange rates—dollars for dollars in Hawaii, rather than dollars for high-priced Deutsche marks. So people that had been denying themselves a nice vacation trip for several years during the recession are eager to get on planes again and fly far, far away from the hard times and places they hope to leave behind.

The Japanese, too, are eager to celebrate the end of the recession. The real estate market in Tokyo is healthy again, so island hotels that had been suffering ruinous occupancy rates are finally filled

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with Japanese tourists who have regained confidence in their finances. When the tourists return to Hawaii, they do not come to do business; nor are they here to see the ancient sites of western civilization. They come to relax. They come to experience the exotic. They come to Hawaii to live out their fantasies of paradise in the South Pacific. They want to see and taste *the real Hawaii*.

But what is the real Hawaii? Surely Native Hawaiians have the most legitimate claim to be the original Hawaiians, but by the late twentieth century, theirs is hardly the only claim to old Hawaii. Like some other lands that have been settled for generations by peoples with different ethnic and racial backgrounds, Hawaii has become a truly pluralistic place. Over the last two centuries, Asians and Europeans from dozens of nations, as well as mainland Americans, have all put down deep roots in the islands.

Claims about who was here first compete with claims about who has worked the longest and hardest to make the islands prosper. Many groups have labored for generations to stake their claims to status and legitimacy. And there has been a good deal of intermarriage among those groups. So purity of blood lines carries little weight in a culture whose pluralism is part of its essence. Perhaps the real Hawaii is to be found precisely where many different locals mix in a diverse ecology of cultures, skin colors, languages, and customs. Could this be the real Hawaii, the aloha to all peoples? Similar to the promise of religious freedom on which America was founded, the promise of multicultural pluralism is kept nowhere better than in Hawaii.

Why does pluralism work in Hawaii? There are no simple answers to questions about successful complexity. Some attribute Hawaii's success at multiculturalism to the sensitivities of its educators. Both children and adults learn how to communicate with and appreciate people of other cultures.

Some attribute the success of multiculturalism in Hawaii to that part of the mix added by Native Hawaiians—the Aloha spirit that everyone acknowledges but few can pin down precisely. So the

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Native Hawaiians do retain a unique status, not so much because they were there first and maintain a pure line back to those origins, but instead because their unique contribution to the cultural mix is recognized by all to be the essential ingredient that makes the mix such a success.

Because tourism is successful, and tourists want the real Hawaii, and Native Hawaiians have a unique role in creating the real Hawaii, the Native Hawaiian culture comes to assume the role of a crucial competitive resource, rather like the sun, the sand, and the ocean. In this scenario Native Hawaiians do not need a sovereignty movement in order to assume a prominent place in island culture. Community leaders from each of the different ethnic groups come to appreciate the contribution of Native Hawaiian culture.

To the surprise of some educators, the immersion programs that conduct their courses in the Hawaiian language begin to attract students from other cultures. Created in the 1980s, these immersion programs are aimed at undoing decades of damage to the Hawaiian heritage.

In the nineteenth century Hawaiians were educated in their own language. A deep respect for education led to almost universal literacy. Then in 1896 the use of Hawaiian in the schools was outlawed. English became the official language. The use of the Hawaiian language declined, as did appreciation for Native Hawaiian culture. Faced with an educational system so unsympathetic to their language and culture, Hawaiians lost some of their love of learning.

Hawaiians had good reason to wonder whether higher education held any value for them. “What does the university have to offer me? Haole scholarship does not speak to me, or for me.”

On the mainland as well as in Hawaii, the myth of the melting pot dominated ethnic issues throughout the first two-thirds of the twentieth century. The Irish, the Italians, and others of European ancestry were eventually homogenized into American society. During the sixties, integration was the buzz-word of the civil rights

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movement. But by the seventies and eighties, separatist movements spoke with ever greater volume, both in America and around the world.

Rather than being embarrassed about immigrant backgrounds, different ethnic groups became more vocal about reclaiming their roots. So by the nineties, Hawaiians could claim ample support for pulling themselves out of the homogenizing melting pot. The new metaphor was the mosaic—an image that preserves diversity and acknowledges the whole as greater than the sum of its separately identifiable parts.

Following the Hawaiian legislature's legalization of education in Hawaiian in 1986, and the Native American Languages Act passed by the U.S. Congress in 1990, education in Hawaiian makes rapid gains throughout the nineties. Whether or not Hawaiian was the main target of this legislation, by 1990 a study by the Modern Language Association found that nearly half of all students studying the 18 Native American languages taught that year were studying Hawaiian. Of 125 languages taught in American universities and colleges, Hawaiian ranked 17th at the university level and 13th at the community college level—higher than Danish, Polish, or Modern Greek.

At Kamehameha Schools, Hawaiian language enrollment increased from 63 in 1987 to 850 in 1992. By 1995 over 1,500 are enrolled. At the university level, UH-Hilo leads the way with the most developed native language program in the United States.

In 1999, the first group of public school children educated in Hawaiian rather than English enter the university system. Many of them enter UH-Hilo, where they are then able to continue their higher education in Hawaiian. Kaua'i Community College also develops a vocational education track taught in Hawaiian.

The new enthusiasm for Hawaiian language and culture is stimulated not only by synergy between the demands of tourists and the support of Native Hawaiians; a third driving force comes from social and political trends toward decentralization. "Home Rule" and

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“shared decision making” are the watch words. Lump sum allocations to different schools and colleges loosen the control of the legislature over local initiatives. Local autonomy makes it no longer possible for officials in Honolulu to micromanage education on other islands.

While the battle for local control was fought most explicitly on behalf of Hawaiians, the victory falls to each of the ethnic groups that populate the islands. The treatment accorded to Hawaiians becomes the standard for treatment deserved by any ethnic minority.

*In Hawaii, Japanese-Americans must think seriously about supporting Native Hawaiian claims to self-determination and sovereignty. We have to understand that our own destinies in these Islands are intimately tied to the degree of justice and decency afforded Native Hawaiians.*

—Dr. Franklin Odo, *The Hawaii Herald*.

By 1999, four-year colleges are operating on Maui and Kaua'i, and the West Oahu campus is expanding rapidly. Inter-island telecommunications are in place to assist the new four-year institutions to draw on resources at the Manoa campus before they build their own faculties and facilities in some disciplines.

During this transitional period, the strains on the faculty at Manoa are intense. In addition to their regular responsibilities meeting their face-to-face classes, they must learn the techniques of televised instruction, manage teams of teaching assistants to handle the homework assignments and exams of students on other islands, and assist in recruiting additional faculty to staff the new campuses. Care is required to make sure that the new campuses complement rather than compete with Manoa.

While the several colleges and universities in the University of Hawaii system have no trouble recruiting faculty in the areas of most interest to locals—Hawaiian language and culture, Asian languages and culture, travel and tourism studies—the inward focus

***Instead the money flows toward improvements in the basics: faculty/student ratios and improved salaries for staff and instructors.***

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of the new curriculum makes it difficult to attract faculty in other disciplines.

Upper division faculty recruitment is a real problem by the late 1990s. Global standards and disciplinary loyalties make mathematicians, physicists, philosophers, and/or French historians reluctant to pursue their careers in Hawaii where living costs are high, housing short, and respect for their disciplines sometimes shorter.

The university system continues to receive about the same share of the state budget that it receives today. Given generally favorable economic conditions throughout the Pacific Rim, tax revenues remain high, so the funds available for education remain generous.

But given the inward focus of policy in this scenario, these funds are not used on high-tech laboratories for cutting edge research in physics or micro-electronics. Instead the money flows toward improvements in the basics: faculty/student ratios throughout the system, major improvements at Hilo, four-year campuses on Maui and Kaua'i, and improved salaries for most staff and instructors.

In 1997, a particularly strong year for the economy when 10 million tourists visit the islands, the windfall to the University funds bricks and mortar for junior faculty housing, and a revolving loan fund on which senior faculty can draw at lower than market mortgage rates.

By the turn of the century, Hawaii is making strides to consolidate commitments made in the early nineties. The military maintains its presence. Improvements in airports and air fares make it easier for vacationers to fly to Hawaii, and there are many non-stop flights to Kona and Maui.

Sugar and pineapple continue to decline as exports, but a new generation of agriculture based on horticulture and tropical fruits is beginning to replace sugar and pineapple with kiwi and tropical flowers. No other new export industries have been developed, so tourism is now more than ever the name of the game for Hawaii's economy. Fifteen million visitors are expected in 2005. But the nature of tourism is changing by the turn of the century, and the



***With natural laboratories like none other in the world, the several campuses build reputations as research institutions.***

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university is essential to meeting the new needs of the tourist industry.

No longer just a matter of making beds, serving meals, or building new hotels, tourism has become a high-tech industry demanding a well-educated work force. Marine theme parks have been established near each of the major tourist magnets on Oahu, Maui, Kaua'i, and off the Kona coast. Each of these theme parks maintains an active relationship with its closest campus.

The new four-year campus on Maui and UH-Hilo develop and maintain strong programs in oceanography. The students in these programs spend much of their time working in the theme parks, whose revenues help fund the new academic programs.

Following the devastation of the rain-forests in South America and Southeast Asia, the rain-forest on Kaua'i has become a much prized preserve. While technology might seem inconsistent with exposing just a few people to the wonders of Mother Nature, technology turns out to be absolutely essential to preserving and protecting Mother Nature from exposure to a great many people. At UH-Kaua'i there is now a well-staffed program in tropical ecology and tropical medicine.

Each of the wilderness areas and marine theme parks has its own mixture of special tanks, submarines, interactive computer simulations, and scientific demonstrations. In order to build, staff, and maintain these high-tech rivals to Disneyworld in Orlando, thousands of locals need to be educated and employed in jobs that demand higher skills than the tourist industry of old.

With natural laboratories like none other in the world, the several campuses of the University of Hawaii system build reputations as research institutions, even as they train students to staff the local theme parks. In order to avoid a wasteful duplication of resources on different campuses, which were built during a period of strong local control and autonomy, there is a strong push toward coordination and integration of the university system toward the close of the scenario period. By 2003 there it is possible for students

***By educating its people to be the very best at what they already were—Hawaii maintains the uniqueness of its heritage.***

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to transfer from one campus to another within the university system without submitting to elaborate course by course reviews of their credit balances.

By the end of this scenario, Hawaii has not discovered another industry to take the place of tourism. Hawaii has not reached out to the world by entering the global economy of telecommunications, entertainment or finance. But Hawaii *has* managed to attract the world to itself. And, at least in this scenario, the citizens of the rest of the world have the interest and resources for travel to Hawaii. By educating its people to be the very best at what they already were—the many-hued hosts at one of the world's greatest tourist attractions—Hawaii maintains the uniqueness of its heritage.

### **Back to the Land**

*In this scenario the same inward-looking focus prevails, but the economy is far less generous. Part of the problem comes from outside: the global economy remains sluggish throughout the early 1990s. But part of the problem is of some locals' own making. Ethnic conflicts flare, and tourism—the single basket feeding the island economy—suffers. So rather than allowing home rule, Hawaiian sovereignty, or a laissez-faire decentralism to take its course, the government on O'ahu seizes the reins and pulls them tight in its attempt to stem the fast ebbing tide of law, order and prosperity.*

*If language was a battleground of the last scenario, then land is a battleground of this. Ua mau ke ea o ka 'aina i ka pono. (The life breath of the lands continues now that things are set right again.)*

The seeds of this future were sown in the past: in the great *mahele* (division of land) of 1848; in the overthrow of the Hawaiian monarchy in 1893; in the Treaty of Annexation of 1897; and in the Hawaiian Homes Commission Act of 1921. After the first three of these four events effectively turned over most of Hawaii to *Haoles*, the last purported to set aside 200,000 acres of the Ceded Lands for homesteading by Native Hawaiians. But once sugar and forest lands

***In Hawaii, land has always been  
a political battleground and  
prize—those who hold land oc-  
cupy the high ground in politics.***

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were removed from consideration—a deal Prince Kuhio accepted—what was left wasn't much.

On the island of Maui the greatest part of the lands given to the Hawaiians for homesteading are on the desert side of Haleakala volcano and rise up to the 9000 foot peak—beyond the timberline, beyond the vegetation line; Hawaiians were given lands to cultivate that were so high that in the entire history of the universe no plant has ever been able to survive and grow there. On the island of O'ahu, they were given hundreds of acres on the face of sheer, thousand-foot cliffs behind Waimanalo. Also on O'ahu they got the desert land of Nanakuli, thirty miles from town on the Wai'anae coast. One tradition says that Nanakuli, which means "Look at the deaf one," got its name because those who lived there had so little water that they pretended they were deaf when travellers passed through, so that they wouldn't have to offer traditional hospitality and give away the precious little water they had. Surveying all of the 200,000 acres set aside by the Act as Hawaiian Home Lands, it is clear that most of the lands the Hawaiians were given were among the worst lands in the state. And the decent lands given them were in remote, inaccessible areas.

—Dudley and Agard, *A Call for Hawaiian Sovereignty*

When Native Hawaiians lost their land, they lost much of their power, for, as Cooper and Daws note in their classic, *Land and Power in Hawaii*, "In Hawaii, land has always been a political battleground and prize. Those who have held land have generally occupied the high ground in politics. If those out of political power have managed to come into power, they have usually set about using their new position to get hold of land."

Following the 100th anniversary of the toppling of the monarchy,

***Native Hawaiians are legally equipped to manage more of their own affairs—regaining the land that they lost in the 19th century.***

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the movement to restore land to Native Hawaiians gains momentum. Spurred on by the successes of other separatist movements around the world, Native Hawaiians organize themselves into a stronger political force than they ever managed before. The sovereignty movement gains strength throughout the 1990s.

By 1998 an organization claiming 150,000 people of mixed Hawaiian ancestry succeeds in gaining the sort of recognition that many Native American tribes have established through treaties with the federal government in Washington. Having established sovereignty by treaty, Native Hawaiians are legally equipped to manage more of their own affairs—including regaining the land that they had lost in the 19th century. This is hardly the first time they tried to reclaim what had once been theirs. But this time the resistance they meet is different: not only the *Haoles* whose ancestors had taken the land in the first place, but other ethnic groups that have gotten in on a new carving of the spoils.

If there were more to go around, the conflict might be less vicious. But the continuing global recession of the early 1990s leaves all groups feeling deprived. The conflict is no longer one between the colonialists and the oppressed, between haves and have-nots. Instead—as in India, or the former Soviet Union, or eastern Europe—conflicts break out over the crumbs.

Have-nots fight against have-nots in battles that are vicious because the stakes are so low (as is so often said of departmental politics in the university). Filipinos fight with Samoans. Organized crime becomes less organized. A youth gang attacks a group of homeless Hawaiians who are staging an encampment on the beach close to a Japanese resort. Finally *Kill Haole Day*—a quaint custom that never led to literal bloodshed—becomes a real threat.

When news of local violence hits the international media, the effect on the tourist industry is as devastating to Hawaii's economy as violence in Jamaica and the Virgin Islands was in the Caribbean. The hotels and beaches are suddenly very quiet. The economy sinks deeper into recession. Unemployment rises to 8 percent. Who is the

***The curriculum is turned toward  
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employer of last resort? The government. And if friends out of work cannot be employed in the government itself, there is always the university to turn to as a provider of jobs.

Now more under the power of the politicians than ever, the University of Hawaii system operates more like a pork barrel than a major university. Scholarly criteria for hiring and firing are far less important than ethnic and political considerations—the university operates as a department of state government. There are both across the board and programmatic cuts to research and development in disciplines of more global than local interest.

Because there has been so little economic development of other industries, the state bureaucracy is the safest haven for employment. So the curriculum at the university is turned toward developing the civil service mobility track. Doctors and lawyers are trained for service in Hawaii, and teachers are trained for teaching rather than research.

By the closing years of the century, Manoa looks less like a world-class university than a trade school. There are fewer international students than there were in the early nineties, and there is not much recruiting of new faculty from Manoa's own graduates. An emphasis on local and near-term utility and relevance has turned the faculty toward human resource development and away from basic research and scholarship.

In order to staff the remaining courses in some of the more esoteric or technical fields, the university must turn to external sources for post-graduate professors. But with a higher percentage of the academic budget going to closely controlled community colleges rather than to the UH-Manoa, there is little chance of attracting world-class scholars.

At the 100th anniversary of annexation, there are speeches praising the return of part of the Ceded Lands to Native Hawaiians. "The solution to the Hawaiians' problems lies in their return to the land and in their reclaiming and developing their traditions and their lifestyle," said Keoni Kealoha Agard from the podium. And

***University officials are caught between schools and departments competing over dwindling resources. They cut staff.***

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indeed, the lifestyle on those lands is better than any achieved in the 18th century, prior to the arrival of Captain Cook, when there were approximately one million Hawaiians.

But between the Native Hawaiians, who now have much of their land back, and the bureaucrats, who control the cities, the rest of Hawaii's residents have fallen into an economic ravine between an ancient agricultural economy and a modern, bureaucratic, service economy. There is little manufacturing; export agriculture is still in decline; and, at the turn of the century, the tourism business has not yet recovered from the violence of the mid-90s. In 1999 only five million tourists visit the islands, a much lower number than had visited in 1990.

Without the tax revenues that the tourist industry once provided, the government is hard pressed to pay for maintenance, much less improvements, in Hawaii's educational system. As the new millennium arrives, university officials finally get what they had long been asking for: autonomy and liberation from micro-management by state government.

No longer willing or able to pay the bills, the state cuts the university system ever looser from both its purse-strings and its authority. For the university system, penury is the price of autonomy. And the price turns out to be too high. Forced to raise tuitions in order to cover budget deficits, the university system loses many of the students it had hoped to serve.

University officials are caught between schools and departments competing over dwindling resources. Desperate for funds, university officials try to cover budget deficits by cutting staff. Hawaii witnesses a replay of the process suffered in California in the early 1990s. Like San Diego State, so it is at Manoa where whole departments are cut and tenured positions eliminated—only to be restored once again following divisive battles behind closed doors. But the best of the faculty move on to other positions before the battles are resolved in their favor. Only those who cannot move remain.

***Toward the close of this scenario, there are regrets. Administrators regret having bitten the legislative hand that fed them.***

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In order to supplement lower levels of state funding, the university system turns to the private sector for support. Hawaii's "big ten" (as they are called after the addition of some Japanese corporations to the original big five) take the opportunity to endow a few chairs and support research in their areas of interest.

But the private funds that are donated to the university do little to close the budget deficit. And given the expectation that the corporations will have a major say in deciding who should sit in their endowed chairs, some fear that the micro-management coming from the private sector will be more onerous than the long arm of the government had ever been. At least there was only one government. Now administrators have a whole pack of private investors to mollify.

Toward the close of this scenario there are regrets. University administrators regret having bitten the legislative hand that fed them. Faculty regret having engaged in divisive battles that left no winners. Different ethnic minorities regret the violence that devastated the tourist industry. The people of Hawaii regret whatever roles they played, or did not play, in allowing both the social fabric and the economy of Hawaii to devolve as it has. All parties are ready for a process of healing.

Teachers, students, and members of the community realize they must piece together agreements to reweave the social fabric and rebuild the economy. Positions and stances that had been non-negotiable are now tempered with humility and ripe for compromise. The tone is set by a conference held at Manoa in 2003. In the keynote address, one of the students who organized the conference, herself a Native Hawaiian, quotes a passage from an address Hayden Burgess made at the United Nations back in 1992:

Let us not be carried off into a belief that indigenous peoples have the answers to all of the environmental, cultural, and relational challenges of the world. Indeed, we have every right to be proud of our cultural, philosophical and historical roots. Indeed, we form an important part of

***The university system becomes a platform for rebuilding the relationships on which a healthy society and vibrant economy depend.***

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the heritage of humanity. And just as other people have had the opportunity to proudly hold up their cultures, indigenous people should do likewise. But who among us have achieved a life quality of universal perfection? We, indigenous and nonindigenous peoples, are in a constant search for spiritual development which has not ended. We must all share in that continuing quest as partners.

After sounding this keynote of humility, the rebuilding begins, and the university system plays a crucial role. As one of the key institutions where people of different cultures meet, study, and try to understand one another, the university system becomes a platform for rebuilding the relationships on which a healthy society and vibrant economy depend. By 2005 a stream of favorable publicity about Hawaii has restored the world's confidence in Hawaii as a tourist destination. The hotels are filling up once again. Tax revenues are growing, and budgets for the university system are growing once again.

It would be wrong to say that things return to normal. Regrets have become memories that do not fade. And much of the Ceded Lands are now in the hands of Hawaiians. But otherwise there are remarkable similarities to where Hawaii was at the beginning of the scenario period. It is as if the struggle over land and sovereignty, and the devolution into ethnic conflict, set the clock back, and only gradually forward again, so that by the end of the scenario period there has been some change . . . but no progress.

### **The Singapore Strategy Overshoot**

*The driving forces for this scenario include an ambitious attempt to diversify the Hawaiian economy . . . carried out in the face of a global recession/depression. A coalition of bankers, politicians and university professors court investments from the mainland and East Asia. But the new baskets, designed to supplement the single basket of tourism, turns out to be for the most part empty. By the late 1990s*



***Hawaii is ideally situated to serve as a financial center for transactions in the fast-growing Pacific Rim economy.***

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*Hawaii's Republicans are accusing the Democrats of mismanaging their industrial policy. Rifts open up in the Democratic Party, a third party forms, and a new administration takes office in 2002. Their new approach includes a voucher system for K-12, and a severe attack on unions.*

In 1993 the signs looked right for a new wave of investment-led economic growth. The first idea to become fashionable revolves around finance. Enjoying a time-zone advantage over other locations, Hawaii is ideally situated to serve as a financial center for transactions in the fast-growing Pacific Rim economy.

Financial analysts and currency traders are buying real estate. The Japanese investment houses welcome lower prices than those in Tokyo. The thought of a Mid-Pacific Stock Exchange had been abandoned during the 1980s, but there are new hopes for other ways of mediating business between the mainland and Southeast Asia. After all, Asian businessmen feel more at home in Hawaii than in the financial centers on the mainland. And no one has come up with a cure for jet lag, so the trip to Hawaii is less taxing on the nervous system than junkets to Wall Street or The City of London.

Steps are taken to create in Hawaii a special economic zone where the banking regulations split the difference between banking practices in Japan and banking practices on the mainland. The intention is to create something like a Grand Cayman of the Pacific without the shadow of illicit money laundering. But intentions are not always realized.

By 1997, negotiations with the SEC and the Federal Reserve are still dragging on. And capital is still a problem. Where are the investors? Bankers have a tendency to cluster in financial centers like London, New York, Tokyo, and Hong Kong. It proves difficult to recreate in a few short years the kinds of clubs, restaurants, and other traditional meeting places where money feels comfortable with other money. Hawaii has plenty of clubs, but not the right clubs for attracting world-class capital.

Short of the necessary patience, or long on the knowledge of

***The business school is much improved, but accounting and investment courses are now staffed by unemployed bankers.***

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when to cut losses, both the state government and private investors agree by 2003 that Hawaii will never make it as a major financial center. By then most trading is taking place around the clock in the timeless ether of electronic trading, so Hawaii's near-monopoly on the mid-Pacific time zone has ceased to count as an advantage.

There are those who wonder why planners back in the nineties didn't see the growing role of telecommunications and the likelihood of electronic trading. So much for the financial industries basket! The best that can be said of the legacy of this failed experiment is that the business school at Manoa is much improved. Accounting courses and investment courses are now staffed by unemployed bankers and financial analysts.

Other baskets still compete for investment. In an attempt to hedge their bets against the increasing momentum of "Buy American" campaigns, several American manufacturers who had relocated operations from the United States to the Far East during the seventies and eighties now pull back to Hawaii during the 1990s. Industrial parks spring up on Maui and the Big Island. Marine biology and bio-technology are the driving technologies, and the university system has a large role to play, both in research and in training technicians.

The last basket to attract investment capital is a large convention center. In response to complaints by large organizations that their members have to spread themselves among too many different hotels, Japanese investors build a truly massive convention center in Waikiki. The central auditorium can seat 30,000 people. Unfortunately it is never filled.

Too many cities compete for large conventions. Hawaii, it turns out, is *too attractive* a destination. Too many convention managers fear that a trip to Hawaii will be viewed as a boondoggle. As a bonus for a selected few (in the hundreds or low thousands), Hawaii is perfect. But managers cannot justify the time or travel costs to send ten thousand or more to the sun and sand.

The mission of the university in this scenario is clear: support

***Graduates with advanced degrees  
in technical specialties find that  
they have to go elsewhere to get  
jobs once the companies go bust.***

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world-class industrial development. Of course the commercialization of scholarship sets off a series of turf battles within the university. What about the humanities? What about Native Hawaiian studies? What about education for life, not just education for work? But with major corporations making large grants to supplement dwindling state revenues (recall, the global economy is in the doldrums), university administrators have little doubt about which side their bread is buttered on.

Unfortunately, most of the investments made in new businesses do not pan out. Part of the problem is the extended recession. Part of the problem lies in the business concepts themselves. The main catch of the marine biologists is nothing very new or esoteric: more fish. Some promising patents are registered by Hawaiian biotechnology laboratories, but none of them turns out to be commercially successful. Again, there is a legacy of improvements in university offerings in related fields. But graduates with advanced degrees in technical specialties find that they have to go elsewhere to get jobs once the companies that might have employed them in Hawaii go bust.

While the investments in these new businesses go far enough to pay handsome salaries to the “symbolic analysts” at the top of the employment pyramid, there is very little trickle-down in the form of middle-level or lower-level jobs. Through the course of the 1990s, the Hawaiian economy therefore delaminates into a highly-paid upper layer of people vainly attempting to develop new businesses with foreign investment, and a lower layer of menial workers who are struggling to maintain the ailing tourist industry.

Despite the best attempts at industrial policy, Hawaii’s economy sinks back toward the feudal divisions that separated the very rich from the very poor in the late 19th and early 20th centuries. And in that climate, the voters return to the politics of those times: tight control by an oligarchy.

By the turn of the century, the series of economic debacles has completely discredited the industrial development policies of Demo-

***Working people are no longer convinced that the Democratic Party is their only political ally. Rifts open up in the Democratic Party.***

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cratic majority. Unemployment has risen to 12 percent. There's not enough money from tax revenues to hire any more people in the public sector. Working people are no longer convinced that the Democratic Party is their only political ally. Rifts open up in the Democratic Party during the campaign for the 1996 election. By 1998 a third party is building a coalition of Green activists and discontented Democrats and Republicans. In 2002, Mufi Hanneman runs and wins the governorship on the third party ticket.

Among the first acts of the new administration is the initiation of a system of vouchers for the private schools. The Hawaii State Teachers Association calls a strike, which is supported by UHPA. But under the new administration, the union movement in Hawaii suffers a series of defeats.

UHPA has its own problems at the University level, where research programs begun with private investments must now be maintained with public funds. Meanwhile the Hawaii Government Employees Association is under attack from the new administration, which has fewer debts to the unions than the Democrats had.

Students and teachers in the community colleges complain that the shifting of resources from locally targeted programs toward globally-oriented research amounts to throwing good money after bad, but the new administration remains committed to the more business oriented mission of the university. The economy is in trouble, and the university must help. The question remains, "Whose economy? And whom will it help?"

As it happens, the university establishment was not entirely seduced by the "Singapore Strategy" that led to so much over-investment in the 1990s. The university was the beneficiary of programs built up in bio-technology and finance, but otherwise the 1990s were years of patient consolidation. So when the economy hit the wall in the closing years of the decade, and the state government ceased acting as the employer of last resort, the university system was among the only remaining institutions on the islands that could claim a reasonable degree of fiscal health and stability.

***Entertainment and education prove to be counter-cyclical. Some of the unemployed go back to school to get training.***

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As often happens in recessions, entertainment and education prove to be counter-cyclical. Some of the unemployed go to movies. Others go back to school to get the training they need for a better job when the economy picks up again. Fortunately the community colleges and the university are there for people who need to take a right-angle turn in their lives. Many older people return for continuing education and retraining programs. The classes are large because education budgets are low. But the university system is able to help itself and others weather the storm caused by the failure of the Singapore Strategy.

**Reinventing Education**

*In this scenario an outward-looking, globally oriented investment strategy works, partly because the global economy is healthier, partly because the strategy itself is more in tune with an information age rather than an industrial age, and partly because the Aloha Spirit is allowed to express itself. By leap-frogging from an agricultural and tourist economy straight into a global information economy, Hawaii is able to act as both sender and receiver of some of the best telecommunicated programming that the new information economy has to offer.*

Hawaii has a lot to offer the rest of the world, and in this scenario its citizens learn how to communicate their wealth and receive wealth in return. The wealth in question is not just financial. While there are cash rewards, the treasure that Hawaii communicates to the rest of the world is the gift of life well lived: sensuous pleasure combined with ethical responsibility; short-term gratification combined with long-term sustainability; intense concentration tempered with laughing delight.

There is something about the local art of living that combines the best of East and West, North and South. In this scenario that mix comes to maturity, and the people of Hawaii learn how to bottle and sell their secret through the medium of telecommunications.

***A flat budget combined with a new administration turns out to be a good combination for taking a look at what higher ed is about.***

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With a new administration in Washington and a new president for Hawaii's university system, 1993 is a year of change and new beginnings. Coming out of the 1990-92 recession after years of steadily increasing budgets, now the university is faced with two years of no net increases. For the first time in years, hard decisions must be made. But a flat budget combined with a new administration turns out to be a good combination for taking a hard fresh look at what higher education is all about. It's clean slate time: zero-based budgeting and zero-based thinking. Everything is up for grabs.

Along with health care costs, education is a hot topic in the new Clinton administration. In Hawaii, education is the number one topic. In the legislature, on campus, and in the pages of the local newspapers, new ideas about education abound. Americans of Japanese ancestry in the third and fourth generations take a high profile role in the debate. Why should they have to send their children to private schools at great cost when their tax dollars could be used to do the job of educating their children?

Seizing on this opportunity for systemic reform, UHPA and HSTA join forces to close the loop between higher and lower education in Hawaii. With K-12 functioning as the supplier of students for the higher education system, and with the university system functioning as the supplier of teachers for the K-12 system, there is an opportunity for greater coordination among the two systems.

In this scenario, planners seize the opportunity, and pour resources of time, money, conversation, and attention into the task of rethinking education from womb to tomb—from pre-school programs to continuing education for adults.

While the flat budgets for 1993 and 1994 forced hard thinking and stimulated research, support for implementing the results of this new thinking come from several sources. First, the economy of the mid-90s is generous, so the tax revenues are there for the legislature to fund new programs. Second, the military takes an

***With legislative, military, and computing and telecommunications industries' support, education gets reinvented.***

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active interest in local training and education. Third, Micromedia Corporation, the multi-billion dollar multimedia research and development company/studio created by Bill Gates and Ted Turner, pumps millions into Hawaii's educational system once it decides to locate its corporate headquarters and main labs on Maui.

The research that supports the new thinking on education is not all new. Rather, it is a matter of taking much of what we already know and making use of it. It is a matter of will and commitment to make changes throughout a system that, without decisive action, remains essentially conservative and very hard to change.

But reinventing education becomes a popular slogan in this scenario, even among educators. And with the support of the legislature, the military, and the computing and telecommunications industries, education gets reinvented in Hawaii, one of the few places where public institutions are strong enough to make change happen quickly.

The military, for example, acts very quickly in changing its mission under the new administration. The new military technological and doctrinal shift favors "distance" over "lethality." Weapons systems in their developmental stages must strike a balance between being able to cover great distances, and being able to carry a higher destructive payload.

Weapons systems over the past several decades have tended to favor lethality over distance. Newer weapons systems—including the range of recent "smart weapons"—change the face of warfare by shifting the balance away from lethality towards distance. The Gulf War demonstrated that highly accurate weapons fired from a great distance may not require high quantities of explosive. The implications of this trend on U.S. military thinking reduces the importance of forward basing and allows the United States to cover vast regions of the world, such as Asia, from parts of the United States, such as Hawaii.

An increased military presence in Hawaii means more than an increase in the number of mouths to feed or children to educate.

***The new military, it turns out, has something to teach public educators about the efficient uses of educational resources.***

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With the new stress on high technology, the new military brings with it a new level of interest in high-tech training programs. And the military, it turns out, has something to teach public educators about the efficient uses of educational resources.

The military has been learning about learning and, along with other educational researchers, the military contributes to the renewed enthusiasm for reinventing education. Military use of high-tech simulations, from flight training to interactive online manuals for the use and maintenance of equipment, is among the most sophisticated applications of multimedia for education.

Micromedia's role complements the military's. Using Department of Defense funding and the knowledge gained from military research, Micromedia employs hundreds at first, thousands later, to develop hardware, software, and programming for interactive systems that combine text, sound, and full-motion video. Micromedia's groupware and courseware set the standard for the industry, and Hawaii's students are the first to try it.

By 1997 most of the pieces are in place for a revolutionary acceleration of learning in Hawaii's schools: parents are more interested than ever; teachers have received training with the new technology; the increased influence of the Japanese, the military, and the growing list of local high-technology companies are all conspiring to move schooling into high gear. But many of the instructors are the same teachers and professors who started the decade, and many of the students began their education in the 1980s or early 1990s.

Though the pieces are in place for a paradigm shift in education, the inertia of the past is still strong. Not least important is the attitude of many locals. Like Canadians, who live in the shadow of their large neighbor and often accuse themselves of an inferiority complex, so likewise the people of Hawaii are quick to accept second-class status for their educational institutions and their culture. But attitudes can change overnight. Unlike geography, or infrastructure, or agriculture, or demographics—all aspects of a



***Unlike geography or demographics—aspects of society that change gradually—attitudes can change very rapidly.***

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society that can change only gradually—attitudes can change very rapidly given the right stimulus.

What if there were some event or series of events that had such an effect on the self-perceptions of the people of Hawaii? The details of the event are less important than the possibility that some such event could rapidly change attitudes about (higher) education in Hawaii.

The scenario approach does not demand that we rest all hopes on the precise specifications of future inventions, only that we release our imaginations enough to entertain the possibility that some such events break the hold of the past and present and turn attitudes in a new direction.

What if the world learns that there is something unique about Hawaii when a new prime-time situation-drama called *Earth Battalion* climbs to the top of the Niensens in 1997? Say the series stars a cadre of attractive locals who work as eco-detectives to trace and catch despoilers of the oceans, forests, and atmosphere.

Each episode of the series might combine beauty, adventure, and cutting-edge research about marine biology, forest ecology, or astronomy. But just as important, each of the protagonists exhibits a unique mix of cultures combined in ravishingly attractive mixtures of humor and wisdom. They are so likable, inspiring, and entertaining all at once that the world simply falls in love with them.

Once the honeymoon is over, the questions begin: Who are these characters? And how did they get that way? And that's when the global interest in Hawaii gets intense. Children want to be as knowledgeable about the oceans, so they tune into the educational channel to catch broadcasts that are beamed up from the research center in Maui. Adults want to be as wise, so they watch the seminars on Western and Oriental philosophy broadcast from the campus at Manoa. Everyone is amazed by the astronomical discoveries made from the observatory on Mauna Kea.

The mixture of life, learning, and adventure that make the series such a success also has a galvanizing effect on the people of Hawaii.

***College undergraduates would flock to courses on esoteric subjects that had never been available before, but are now beamed in.***

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Suddenly they are proud of themselves and proud of their university. It could happen. Parents might find it easy to interest their children in mathematics. High school students could show a precocious interest in philosophers like Nishitani.

College undergraduates would flock to courses on esoteric subjects that had never been available before, but are now beamed in from Bombay, Belfast, and Gainesville—just to mention a few of the hundreds of locations linked in a global network of layered communications systems. Graduate students will specialize in subjects that prepare them to take part in the new global economy of information and experience.

The *experiential* dimension of the information economy is the nut that script writers in Hawaii crack before anyone else—the fact that no one is much interested in streams of bits and bytes unless they are so arranged as to make the heart beat faster. Rather than trying to supplement the tourist industry by developing other industries according to the old industrial paradigm—always a problem for far off Hawaii if the mass-manufacture, marketing, and distribution of physical goods is the model—Hawaii has to find a way of leaping over the physical-manufacture-model, straight from the agricultural age into the information age. In order to make that leap, however, producers in Hawaii act on their knowledge that bits and bytes can be very boring.

Raw data can be *stored* almost anywhere on earth. Further, it can be *processed* almost anywhere as well, as Citibank discovered when it relocated its credit card operations to South Dakota. If instant communications wipe out the advantage of location enjoyed by the traditional centers of commerce, then all remote places—South Dakota as well as Hawaii—derive the same advantage from low-cost, high-speed communications.

What, then, is Hawaii's unique comparative advantage over other remote locations? Answer: those very things that make Hawaii unique: her physical resources, her climate, and her people. So these unique resources become the focus of the bits and bytes that Hawaii

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sells around the world through the rapidly expanding medium of global telecommunications.

The fact that Hawaii was the beta-test-site for much of the new courseware from Micromedia turns out to be far more significant than Micromedia's planners had imagined. They chose to locate on Maui just because they realized that in their business they could locate anywhere, but that many of their prospective employees, also free to locate anywhere, would prefer to work in a pleasant environment. What they didn't count on was the importance of a population of human guinea-pigs who would insist more than most that learning be enjoyable. Programming that is both entertaining and educational becomes the new product that Hawaii has to offer.

The university and its research centers are the upstream source for much of the new programming, though not everything that goes on at the university makes its way into the new multimedia pipeline. The primary disciplines all benefit from success of *Earth Battalion*. It isn't just a matter of the cash that comes to the University as a contribution for its role; more important is the new sense of self-respect that the people of Hawaii in general and students and faculty in particular now feel for their institution and for the activities of teaching, learning and research.

As Hawaii comes in greater contact with the rest of the world, it is easier to shift the K-12 curriculum toward a more global orientation. The immersion programs continue to grow, including university immersion at UH-Hilo; Native Hawaiian language and culture are an important part of Hawaii's uniqueness that contribute to its comparative advantage in the global telecommunications marketplace. But the content of the courses conducted in Hawaiian now extends beyond Hawaiian culture to include more subjects like math and science. Now able to learn many subjects in their own language, Native Hawaiians regain the love of learning that gave

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tant as hard work.***

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learning binds Hawaii to the rest of the world, and it binds the several islands closer together. By the end of the century many of the television sets on the islands, even in the humblest of homes, are adapted to link with telephone lines so that a great deal of learning takes place in students' homes. A small house on Maui can tune into courses offered at Manoa; but, more remarkable, that small house on Maui can tune into courses from Tokyo or Berkeley almost as easily. At the same time students from the rest of the globe can tune into real-time explorations of the ocean floor off the Kona coast, or to nighttime explorations of the skies over Mauna Kea.

For all of Hawaii's citizens, education becomes the medium and condition for social mobility. In the new information economy, it is clear that *smart* work is as important as hard work. For some, mobility means moving off the islands. But brain drain is not much of a problem because more well-trained people want to come to Hawaii than those who want to leave. By the late 1990s, Congress has to pass an immigration bill that borrows many of its features from German laws regulating the number of guest workers from other nations.

By the turn of the century, Hawaii's new reputation attracts a considerable amount of venture capital, which often swarms to high-tech research centers like bees to honey. With the university attracting more funds from the private sector, some are tempted to seek more autonomy from the state government. But what the university system gains in freedom from political influence, it risks losing in its dependence on private capital, which has its own agendas that are not always consistent with those of the people of Hawaii.

By the turn of the century the debate over university autonomy from the legislature has lost much of its heat. Education is recognized as a public good, and the responsibility for equity in delivering public goods is recognized as the legitimate province of government. Most people now recognize a role for the government in helping to steer the educational system around historical corners.

***Education is recognized as a public good. Responsibility for equity is recognized as the legitimate province of government.***

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Only the cooperation of university planners, legislators, the military, and the private sector could have kept Hawaii on an even keel through the transformation of education that occurs in the 1990s.

Most of the private sector's new ventures in Hawaii are more than welcome—the new International Sports Center, the Underwater Theme Park. But some of the new ventures are greeted less than enthusiastically. Some complain of increased traffic and congestion. On balance, however, the people of Hawaii are delighted to see their standard of living improving. And they know that they owe a large part of their new prosperity to the creativity of people in the University of Hawaii System.

The film program at Leeward Community College is now closely associated with a new studio built by Sony and Columbia Pictures. But, just as important, the evolution of desktop production in the 1990s has done for full-motion video what the PC did for desktop publishing during the 1980s.

Now virtually anyone can produce a video with production values that used to require an entire studio and professional editing lab. And Hawaii is a leader in a new industry that does not so much *provide* multimedia to the home as much as it *mediates* the exchange of multimedia from many homes to many other homes. Hawaii is fully hooked into the worldwide telecommunications network. What is a surprise to many is the degree to which Hawaii is a sender rather than merely a receiver.

Many of the hundreds of channels available worldwide are devoted to desktop produced home-video, a vast electronic marketplace that amounts to e-mail with moving images. But many of the channels are devoted to fairly traditional media-offerings as well: movies, sports events, news. Finally, many of the channels are devoted to education: courseware from the great universities of the world, and the University of Hawaii system is prominent among them in this new world of enjoyable education.

In this new world of multimedia education, bricks and mortar don't mean as much as they used to. Fights over four-year campuses

***Educators are relieved from many of their old tasks so that they can devote the attention required to the students who need it most.***

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apart from Manoa have faded in a world where students no longer have to identify with going to one campus or another. Instead, much of the curriculum comes to them. Of course there is still a strong role for face-to-face human interactions, especially for students just out of high school who need some mentoring, and for adults “in transition” who need to get away from their old jobs and find new networks of support for their new life choices. By making judicious use of new educational technology, educators are relieved from many of their old tasks so that they can devote the attention required to the students who need it most.

#### **‘Pinning the Corners’ of Uncertainty**

Knowing that we cannot know what the future holds, what strategy is best for higher education in Hawaii? These four scenarios help answer that question just to the extent that they “pin the corners” of uncertainty. Any strategy that can succeed under all four scenarios is a strategy that can cope with the most important uncertainties faced by Hawaii’s educational planners. Any strategy that succeeds under only one of the scenarios, but fails under all others, is a strategy that bets the university system on a narrow slice of possibility. The purpose of developing alternative scenarios is to steer planners toward a strategy that will be resilient and robust across almost all possible futures.

The boldness of the *Singapore Strategy*, for example, is vulnerable to both a global economic downturn, and to the failure of the particular industries targeted by an expansive industrial policy. By the same token the timidity of an inward looking concentration on tourism risks the devolution of Hawaii’s social structure and economy, as depicted in *Back to the Land*. No strategy can succeed in the face of natural disaster or nuclear holocaust. But a prudent grasp at real opportunity should not be deterred by such low probability scenarios. Where, then, do these scenarios reveal both dangers and opportunities?

***A strategy for exploiting new telecommunications technology for education would seem to have no significant downside.***

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*Telecommunications*

Clearly the confluence of telecommunications and entertainment holds some promise for education, as we see in the last scenario. But what is more important, a strategy for exploiting new telecommunications technology for education would seem to have no significant downside in any of the other scenarios. Whether the citizens of Hawaii choose an outward looking or an inward looking mission for the university system, more can be done with telecommunications technology for distance learning. If either of the first two scenarios comes to pass, then telecommunications technology will be used primarily for intra-island traffic. If either of the last two scenarios comes to pass, then telecommunications technology will be used more for linking Hawaii with the rest of the world. But in no scenario would telecommunications technology be useless.

By 1998, AT&T and several partners will complete its trans-Pacific cable network, a 15,525-mile network of fiber-optic cable known as TPC-5. Also by 1998, Motorola's Iridium project should have 66 satellites providing a wireless communications system usable from anywhere to anywhere on the face of the earth. These projects are in the works. They will come to fruition within the time frame of our scenarios.

The imminent availability of a better telecommunications infrastructure for the world is not an uncertainty. The only uncertainty is whether the people of Hawaii choose to take advantage of this new global resource. Given the remoteness of Hawaii's islands, one from another, and each from the rest of the world, it is hard to see how Hawaii could not benefit greatly from the gift of advancing communications technology. The only question is whether the people of Hawaii will take full advantage of the potential that is unfolding.

Some progress has already been made in exploiting new communications technology. Maui Community College already offers courses at its educational centers in Hana, Lana'i City, and

***Some of the interactive and social aspects of education may be sacrificed by too great a dependence on remote learning.***

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Kaunakakai, Molokai, over *Skybridge*, a two-way audio/video teleconferencing network. Likewise the Hawaii Interactive Television System (HITS) links the Manoa campus with remote locations—but only over one channel for instruction in one course at a time. Much heavier traffic will be possible when “smart TVs” merge with “smart telephones” to link most homes to broadband networks carrying far more programming than we are currently used to.

*For students*, the implications of this new technology will be several. First, students will not be required to show up on campus as often. They will be able to conduct much of their learning from home or from their place of work. Second, they will be able to control their own schedules to a greater degree. Programmed instruction will be available around the clock. Third, there is a danger that some of the interactive and social aspects of education may be sacrificed by too great a dependence on remote learning and programmed instruction. Care will be required, and a reallocation of human resources, to ensure that hi-tech electronic instruction is supplemented by hi-touch human interaction.

*For faculty*, the implications are equally fundamental—and not all good. While distance learning will allow faculty to reach more students, they will do so through a medium that lacks the ambiance of face-to-face encounters. Faculty will also find themselves in competition with a much broader pool of professors whose courses are available online. Indeed, the new technology may introduce a “star system” into assessment and promotion of faculty.

Telecommunications will have a further implication for Hawaii’s community colleges: as a technology whose effect is to shrink distance, it will favor those locations that are most remote.

*Focus*

The unstoppable march of telecommunications technology has a further consequence: the university system should focus on doing a few things well. In a world where you can get your physics from MIT and your history from Harvard, it will be important for each



***In a world where you get physics from MIT and history from Harvard, it's important to focus on areas of comparative advantage.***

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university to focus on a few areas of comparative advantage. Clearly astronomy and oceanography are strong candidates for centers of excellence. Others include, but are not limited to, tropical medicine, horticulture, earth sciences, and linguistics.

Japanese studies, Chinese studies, and other areas of East/West research are obvious candidates for further investment of resources. But something must be done to heal the 20-year-old rift between the university and the East/West Center. Certainly there are opportunities for building bridges between the East/West Center and a strengthened School of Hawaiian, Asian and Pacific Studies (SHAPS).

*One University, One System*

The splintering off of the East/West Center in 1972 is symptomatic of a wider problem in the University of Hawaii System: too many walls, too many turf battles, too many fights over jurisdiction. "Articulation" is the code word for bringing courses into compliance with a system for transferring credits from one campus to another, a practice that is currently far too laborious.

A certain amount of local autonomy and site-based management is necessary in order to give individual educators a sense of ownership and responsibility for the courses they teach. But some steps in the direction of a common system of accountability seem worth taking no matter which of the scenarios unfolds. As communications links among the several campuses improve, it will be even more necessary to operate Hawaii's system of higher education as a single system, albeit with highly differentiated and sometimes highly specialized parts.

As one influential interviewee put it, "There is a significant danger that the University of Hawaii System is *less than the sum of its parts*." That is, while there are many excellent programs with many excellent faculty, the popular assessment of the system as a whole is not as strong as the excellence of many of the parts would

***Faculty will find that students in upper division courses are better trained in the prerequisites needed for advanced study.***

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suggest. Both the perception and the reality could be improved by more coordinated efforts.

Both students and faculty will benefit from a better coordinated university system. Students will find it easier to transfer credits. Faculty will find that students in upper division courses are better trained in the prerequisites needed for advanced study.

*Multiculturalism*

As mentioned earlier, and dramatized in the scenarios, Hawaii's mix of different races and cultures is one of its most significant assets. Or, as shown in the second scenario, *Back to the Land*, it could become Hawaii's greatest liability. It will come as no news to the people of Hawaii that their mix of cultures is an important fact about Hawaii. But only a view that pans in on Hawaii from the rest of the globe can show just how important this mix might be.

In each of the scenarios, in several different ways, the university system proves crucial in managing multiculturalism. Whether the focus is on deepening local knowledge of the traditions from which different ethnic groups originate—as in the first two scenarios—or helping the rest of the world learn something of what it takes to make multiculturalism work—as in the last two scenarios—the importance of multiculturalism is inescapable. More might be done to capitalize on the fact that Hawaii may be one of the best “laboratories” for studying cultures and their interactions with one another.

The development of immersion programs in Hawaiian, and other programs in multicultural studies, might be a good strategy for all scenarios. The 1991 report by the University of Hawaii Board of Regents, *A Statewide System and Beyond: A Master Plan for the University of Hawaii*, pointedly remarks: “The University was once a leader in ‘race relations’ studies [emphasis added].”

It would be worth restoring leadership in this important area where Hawaii might make a real contribution to the world. In the hard times—scenarios two and three—this strategy provides some of

***More might be done to capitalize on the fact that Hawaii may be one of the best “laboratories” for studying cultures.***

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the glue that holds different ethnic groups together. Supporting cultural diversity may cost money, but it is money well spent.

In the relatively good times—scenarios one and four—this is a strategy that a) helps develop the cultural base that makes Hawaii an appealing place to foreign companies and tourists; and b) helps develop the kind of courses that the University of Hawaii system can provide better than any other educational institution in a networked world.

One implication of this strategy—for both students and faculty—would be to shift the ethnic balance of minority faculty toward the Manoa campus—where haoles are more numerous—and away from the Community Colleges, which are currently staffed by higher percentages of non-*haoles*.

*Reinventing Tourism*

Traditional tourism is not a sustainable or assured basis of prosperity for a mature, information-age economy. Traditional tourism does not provide educational challenges for local students. It does not provide long-term opportunities for the best and the brightest and the most ambitious. The university is one of the few institutions that can play a relatively detached and credible role in shaping the debate over Hawaii’s economic future. It should seize the opportunity to do so rather than merely reacting to the ups and downs of the tourist industry.

Given the unique gifts of Hawaii’s geography and climate, and the considerable economic benefits of the tourism industry, it would be a mistake to pretend that tourism is going to go away or be entirely replaced by some new source of wealth. All the more reason to reinvent tourism: to use the resources of the university system to study and educate new generations of students to a new approach to tourism. As suggested in the first scenario, *Honoring the Heritage*, high technology has a place in tourism. Also the ocean, the rain forests, and the many cultures of Hawaii offer resources for a tourist

***There's a serious gap between the demands of a technologically-based economy and a patchwork of educational systems.***

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industry that could do more than help harried travelers relax in the sun.

*Exporting Education*

Assuming that several of these strategic implications are acted on and Hawaii establishes a system of higher education that is the pride of its people, then there is a significant opportunity for making education itself one of the new baskets to supplement tourism is Hawaii's future economy.

Several nations in Southeast Asia are currently facing serious educational shortfalls. Their plans for economic development presuppose tens of thousands of skilled employees, in each case many more than they are graduating from their own schools and colleges. Recent interviews have revealed that planners in each nation presume that they can make up the skill gap with guest workers from neighboring nations. But this policy cannot work for every nation. Throughout the Pacific Rim, there is a serious education gap between the demands of a rapidly developing, technologically based economy and a patchwork of educational systems that cannot supply that demand.

Monash University in Melbourne is already targeting Southeast Asia as a market for its "television university." It expects up to 12,000 students to be enrolled in 1993, and more than 25,000 by 1995. More than 30 university subjects will be available via Australian Broadcasting Corporation, and the course list will increase to 150 by 1995.

In its 1992 August budget, the Australian government allocated \$53 million to the new tele-university over the next three years. For their part, students pay a fee of Aus\$300 for each unit of 24 needed for a degree. A full year's courses cost \$2,400. At that rate the government of Australia's initial three-year investment could be repaid in a single year of 22,000 full-time students.

This is a potentially profitable business, and one that Hawaii could well enter. It is not unreasonable to expect that Hawaii could

***The pattern of a single career  
preceded by a single education is  
giving way to multiple careers  
interrupted by education.***

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have significant advantages over other universities in using telecommunications to export education to Southeast Asia.

The implications of such a strategy for the faculty would be considerable. The University of Hawaii's "student body" could be increased by tens of thousands. The nature and extent of demand for different course offerings would shift according to the needs and interests of a new constituency.

*New Students*

Whether or not the university system exports education to Southeast Asia, the student body will change over the coming years. As Figure 3, "Changing Student Profiles," shows, students are getting older, and there are more part-time enrollees. These trends are likely to persist as "adult education" or "continuing education" plays a larger role in the life of the university system.

Higher education is no longer restricted to students in their teens and twenties. The pattern of a single career preceded by a single education is giving way to multiple careers interrupted by periods of educational renewal. The university is becoming a place where people reorient lives disrupted by rapid economic and technological change.

This demographic shift in the student body has several implications for the faculty. First, the most experienced among the faculty already wonder whether they *know* these new students. They are not the same—in age or experience—as the younger students they used to teach. Faculty need to take the trouble to get to know these new students.

Second, older students are likely to make demands that younger, more docile students would not. These newer students wish to be treated like responsible adults. A pedagogy that assumes ignorance and docility will be inappropriate to more mature learners who already have considerable experience to bring to bear on subjects like literature, political science, or business administration. Seminar settings, team learning, and interactive group assignments will have to replace lectures that treat students like blank tablets.

**Figure 3**  
**University of Hawaii**  
**Changing Student Profiles**

The implications just listed represent areas of new opportunity for higher education in Hawaii. But perhaps most important of all is the perennial opportunity that higher education has always offered: the opportunity to learn and grow and become a larger human being. This opportunity is much the same as it always has been. The challenge for every state consists in extending that opportunity to greater numbers of people. What *has* changed is the number of jobs that demand more highly educated employees.

In a report written especially for the National Education Association, Laura Tyson (Bill Clinton's appointee to the Council of Economic Advisors) cites a study by the Hudson Institute that shows: "of all the new jobs created over the 1984–2000 period, more than half will require some education beyond high school, and almost a third will be filled by college graduates." In another briefing paper written for the NEA, another author writes: "Increasingly, jobs are becoming 'dead end' because *people* are 'dead end'—they lack the education to move into better jobs or to accommodate an 'upskilling' of their old jobs."

To accommodate the new, globalized information economy, as well as to enrich the individual lives of her citizens, Hawaii could do worse than to commit major resources of time, attention, skills, and money to the task of creating a higher education system for the twenty-first century.

This report does not presume to dictate the mission for the university system in the next century. Instead, the several scenarios show both the success and the failure of strategies that take an inward focus or an outward focus for the mission of the university. In exploring these several *what-if* stories, however, certain risks and opportunities come into the foreground. By entertaining these several scenarios, the citizens of Hawaii should be in a better position to make the decisions that will guide higher education in Hawaii through the coming decades.

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## **Appendix**

Resolution by the Membership of the Modern Language Association:

Whereas, native American languages are the first American languages and a unique cultural component of the United States; and

Whereas, native American languages do not have foreign homelands whose governments and institutions can be expected to promote them; and

Whereas, increased attention to the academic study and use of native American languages serves traditional language study goals as well as special needs of native American students; and

Whereas, the presence of students with fluency in native American languages contributes to the unique character of higher education in the United States, to the benefit of student bodies and faculties at large; and

Whereas, it is possible, with assistance from native American language experts, for American universities and colleges to grant students second language credits for demonstrated first or second language fluency and literacy in native American languages not taught on their campuses; and

Whereas the Modern Language Association of America is a professional organization of over twenty thousand members committed to the study and teaching of modern languages; now, therefore,

Be it resolved that the Modern Language Association of America actively support the preservation, study, teaching, artistic use, and survival of the languages indigenous to the United States, its territories, and possessions by recognizing the merits of (1) appropriate government and private support for such native American languages as a unique American attribute and responsibility; (2) an increase in the teaching and use of such native American

languages, especially in higher education; and (3) the acceptance of literate fluency in such native American languages as fulfillment of second language study requirements in universities and colleges.

*passed in 1989 by a vote of 2,246 to 299*