THE NEW GEOGRAPHY

HOW THE

DIGITAL REVOLUTION

IC DECHADING THE

AMERICAN LANDSCAPE

JOEL KOTKIN



RANDOM HOUSE

NEW YORK

THE NEW GEOGRAPHY

HOW THE

DIGITAL REVOLUTION

IS RESHAPING THE

AMERICAN LANDSCAPE

JOEL KOTKIN



RANDOM HOUSE

HEW YORK

Copyright © 2000 by Joel Kotkin

All rights reserved under International and Pan-American Copyright Conventions. Published in the United States by Random House, Inc., New York, and simultaneously in Canada by Random House of Canada Limited, Toronto.

Random House and colophon are registered trademarks of Random House, Inc.

Library of Congress Cataloging-in-Publication Data Kotkin, Joel.

The new geography: how the digital revolution is reshaping the American landscape / Joel Kotkin.—1st ed.

p. cm.

Includes index.

ISBN 0-375-50199-1

 $1.\ Cities\ and\ towns -\!\!\!-\!\!\!Effect\ of\ technological\ innovations\ on-United\ States.\ I.\ Title.$

HT123 .K67 2000 307.76—dc21

00-028096

Random House website address: www.atrandom.com
Printed in the United States of America on acid-free paper
24689753
First Edition

Book design by J. K. Lambert

For my mother, who taught me the essentials

CONTENTS

1. Digital Geography	
2. The Anti-Urban Impulse	. 2
3. The Future of the Center	5
4. Welcome to the Casbah	8
5. The Artful City	11
6. Main Street 2020	14
7. Places in the Heart	16
Acknowledgments	19
Notes	19
Index	23

THE NEW
GEOGRAPHY

CHAPTER 1

DIGITAL GEOGRAPHY

n a manner not seen since the onset of the industrial revolution, technology is reshaping the landscape of American communities. Just as the railroad, telegraph, and mass-production factory transformed the social and economic reality of cities, towns, and rural hamlets in the nineteenth century, the rise of the digital economy is repealing the economic and social geography of contemporary America.

The digital revolution not only accelerates the speed with which information is processed and disseminated, it also restates the relation of space and time within our communities. Decisions about where to locate businesses, for example—once dependent on questions of access to ports, roads, rails, or raw materials—are increasingly dependent instead on the ability to link often scarce human resources. This

trend toward virtualization seems virtually unstoppable; electronic business-to-business transactions, estimated at \$43 billion in 1998, are expected to grow to over \$1.3 trillion by 2003.

As distance has shrunk, much of what has shaped our understanding of geography and place has been transformed irrevocably. Once the world seemed to be made up of unique locations—Texas cattle ranches, teeming and distinct urban neighborhoods, stately old New England towns, relaxed beachside cities. These locations still exist, of course, but ever more, as H. G. Wells predicted a century ago, many of the distinctions between places, between town and city, have become as obsolete as the horse-drawn mail coach.²

The growing importance of information industries—those involved in the dissemination, processing, and creation of information—has accelerated this process by making more and more of economic growth dependent on nontraditional factors, most particularly the locational preferences of individual entrepreneurs and skilled personnel. In the past twenty years, the share of the U.S. economy captured by these sectors, which range from media and entertainment to telecommunications and computers, has doubled. They now account for roughly two-thirds of the differential between various regions, according to Milken Institute economist Ross DeVol, and for most of the nation's growth in productivity.³

These changes have resulted in the emergence of a social order, first envisioned by Daniel Bell in the 1970s, in which information supplants-energy and conventional manufacturing as the critical source of wealth. Workers in the information field—whose numbers are projected to nearly double between 1994 and 2005—represent the ascendant new middle class of the twenty-first century, earning roughly twice as much as other private-sector workers. The information economy is likely to determine the locale of elite pockets of

wealth. In 1984, technology and entertainment industries accounted for twenty-three of the Forbes 400 richest Americans; ten years later, that number had swelled to 57.6 The growth of technology, entertainment, and media since then has further accelerated this trend.

These changes profoundly alter the very nature of place and its importance by deemphasizing physical factors—such as access to raw materials and ports—and placing greater emphasis on the concentration of human skills in dense concentrations of population. Why? First, because increasingly, wherever intelligence clusters, in small town or big city, in any geographic location, that is where wealth will accumulate.

By its very nature, the emerging postindustrial economy—based primarily on information flows in an increasingly seamless net—frees location from the tyranny of past associations. Even such centers of gravity as Wall Street, Hollywood, and Silicon Valley, though possessing functions and allures that are mutually reinforcing, are increasingly not mandatory for the building of a successful firm or career in finance, film, or the computer industry. Increasingly, companies and people now locate not where they must but where they will.

This has led some to suggest the inevitable increase of a spirit of "placelessness." If physical constraints to wealth creation are largely obliterated, so too should the kind of attachments to a particular place that have been evident since the beginnings of civilization. "We are entering the fourth dimension," insists international business consultant William Knoke. "We are living in a placeless society."

In the business world, in particular, this notion of placelessness has some resonance. Already real estate companies are preparing to offer leases that allow clients to shift locales as they please. In the future, predicts one real estate executive, firms will demand "space" without actually committing to a locale: a firm will lease 100,000 square feet

in New York, but with an option to cancel and shift the lease to Columbus.⁸ This antigeography is further enhanced by the proliferation of e-mail, cell phones, and other communications devices. Executives at major multinationals increasingly work in one country while essentially living in another, using the new technologies, air routes, and time-share arrangements in local hotels.⁹

Ultimately this leads to a notion that, over time, our compelling connections will be not with our physical neighbors but with those with whom we share business, cultural, or other interests. The "cities of the future," argues William Mitchell, are by nature antispatial: "The worldwide computer network—the electronic agora—subverts, displaces and radically redefines our notions of gathering place, community and urban life. The Net has a fundamentally different physical structure, and it operates under quite different rules from those that organize the action of public places of traditional cities." ¹⁰

WHY PLACE STILL MATTERS

espite such assertions, I believe that the digital economy may well have precisely the opposite effect on place.

In truth, the importance of geography is not dwindling to nothing in the digital era; in fact, quite the opposite. In reality, place—geography—matters now more than ever before. If people, companies, or industries can truly live anywhere, or at least choose from a multiplicity of places, the question of where to locate becomes increasingly contingent on the peculiar attributes of any given location.

What has changed, and profoundly, are the rules governing geography, and the making of successful and unsuccessful places. Perhaps the key rule grows from the realization that where information-

processing companies, related services, and skilled professionals choose to locate will increasingly shape the geographic importance of future cities and communities.¹¹

As today's technology allows work to be distributed anywhere, locational *choice* becomes more elastic. The growth of a given juristication or region now depends increasingly on the decisions of specific groups of individual entrepreneurs or workers to locate there. These individuals—investors, engineers, systems analysts, scientists, creative workers—are increasingly what one analyst has called "very sophisticated consumers of place." To them, the world is essentially a vast smorgasbord in which various locales compete for their affections and attention.

As a result, the important distinctions between locations, and the variables governing their success, have become, if anything, *more* important. The more technology frees us from the tyranny of place and past affiliation, the greater the need for individual places to make themselves more attractive. Surveys of high-technology firms find that among factors that drove their decision of where to locate, a "quality of life" that would make the area attractive to skilled workers was far more important than any traditional factors such as taxes, regulation, or land costs. ¹³ The primacy of this factor helps make expensive, highly regulated San Francisco and its suburbs among the wealthiest places in the nation and also explains why aesthetically unpleasant places such as Fresno, inexpensive and located in a highly fertile valley, rank near the bottom in terms of economic health. ¹⁴

In the process, many of the geographic certainties and delineations that dominated America in the second half of the twentieth century have become increasingly irrelevant. It is as if the locational deck has now been reshuffled in a profound way. The once sharp distinctions between frost belt and sun belt, city and suburb, countryside and me-

tropolis are now increasingly blurry. In the new paradigm, there are both successful and unsuccessful places of every type and distinction. What matters is not so much whether a place is little or big, hot or cold, old or new, but whether it has found or not found a viable niche within the new economic order.

In some senses, this process recalls the industrial revolution, when the rapid growth of railroads—mileage in the United States alone increased ninefold between 1860 and 1915¹⁵—and the telegraph similarly repealed the existing urban geography by changing the dynamics of time and space. As with the Internet today, the world was telescoped at what seemed a remarkable rate. In 1800, it took six weeks to ship goods or people from New York to the Midwest; less than sixty years later it took three days.¹⁶

Trains, telegraphs, steel, electric lights, and automobiles—the sinews of modern civilization both created enormous new wealth and occasioned the growth of great new cities in former backwaters from the British Midlands to the American Midwest. Many of these places had once been thought of as too cold, remote, and unattractive for mass habitation, yet they proved to be the places best suited to take advantage of the new technology—by dint of central location, access to waterways, raw materials, and supplies of labor—and they benefited most from the new economic realities.

Today the hierarchy of place is once again being radically reordered. In the digital age, some cities thrive and others continue to die; some rural communities breathe new life and others expire; one set of suburbs becomes ever more affluent, another becomes a ring slum. Some small compact cities—such as San Francisco, Seattle, Boston, and Denver—attractive to many skilled knowledge workers, have become exemplars of a modern resurgence of urban life. They enjoy some of the lowest vacancy rates for offices, the best levels of education for their workers, and the highest degree of Internet penetration.

At the same time, the largest metropolitan regions—New York, Chicago, and Los Angeles—have become increasingly bifurcated, with large attractive sections flourishing with the rise of the digital economy while others remain still devastated by the collapse of the industrial paradigm. Manhattan, the inner lakeshore districts of Chicago, the Los Angeles coastal strip enjoy a heady renaissance; older, less attractive former industrial precincts in the outer boroughs, the far West Side of Chicago, and South-Central Los Angeles fare far less well.

Still other cities—many of them former paragons of the industrial era, including such cities as Newark, Detroit, and St. Louis—have become utterly marginalized in the new economy. These communities continue to suffer the most dramatic population losses and remain among the least "wired" areas of the country, with among the lowest rates of connectivity to the Internet.¹⁷

The most obvious winners have been the new peripheral communities, what I call nerdistans, self-contained high-end suburbs that have grown up to service the needs of both the burgeoning high-technology industries and their workers. Their raw material is not ports, coal, iron, or even highway locations but concentrations of skilled labor. High levels of educated workers characterize such areas as Austin, Texas, Chandler, Arizona, Irvine, California, and Raleigh, North Carolina, to an extent far above the national norm. ¹⁸ Companies prefer these locations for a host of reasons, including the relative lack of distractions, low crime, and often lower taxes, but again, the most critical reason, according to numerous studies, is with the availability of and attraction for needed employees. ¹⁹ The promise of lifestyle appealing to both executives and their workers, not tradi-

tional economic factors, is the key motivator. Explains corporate demographer David Birch, "The impulse is not hard to understand. People want to live where the air is clear, where you can ride a bike or play golf all year round." ²⁰

In contrast to the nerdistans, the older suburbs, which as a whole I label the midopolis, generally face less rosy prospects. Built largely in the 1950s and 1960s, these areas face increasing competition from the nerdistans, many of which were planned precisely with information-age companies in mind. As knowledge workers and companies flee to the newer nerdistans, there are dramatic increases in the poverty and potential for further decay in scores of older suburbs, from Long Island to the San Fernando Valley and even in parts of Silicon Valley. These areas have also become increasingly ethnically diverse. In many cases, as in Northern California's Santa Clara Valley. immigrants, largely from Latin America and Asia, have brought new life and energy to the economy. Yet at the same time, they have also brought new challenges, including the growth of a large population of poorly educated residents, interethnic conflicts, crime, and gang-related problems. This, plus an aging infrastructure, declining schools, and increased pollution, have caused many of these areas to lose their appeal to knowledge workers, particularly those with families, who instead choose to flock to the generally more homogeneous, freshly minted nerdistans.

Like the inner city before it, the midopolis is now being left in an exposed position, increasingly out of favor with the middle-class homeowners who have long been its primary residential constituency.²¹ If present trends are left unchecked, ghettoization looms as inevitable for some communities, particularly older areas populated with smaller houses and apartments. This can already be seen in parts of

San Jose, Queens, northern New Jersey, and the northeastern corner of the San Fernando Valley.²²

The new dynamics of place and prosperity can also be seen reshaping the vast rural hinterlands of the nation. For the favored locale of Boulder, once a remote and almost inaccessible college community, the new rules of geography have been a boon, transforming it into a new hub of the burgeoning technology era. These communities constitute what I call the Valhallas: rural areas, usually with significant urbanlike amenities and appealing scenery, where knowledge workers can enjoy a pastoral paradise yet remain plugged into the burgeoning information economy. Some of these communities—such as Jackson Hole, Wyoming, and Park City, Utah—even have become important centers of wealth, technological prowess, and financial power.

For other communities, particularly in less attractive locales, the shift to the new economy has accelerated the process of decline. Small towns, particularly those once dependent on resource extraction, have tended to wither in the new era. In rural America, as in the suburban midopolis and the center city, the new century will produce both winners and losers, future boomtowns and incipient ghost towns.

THE POSTINDUSTRIAL CITY

erhaps nowhere are these changes more complex, and revealing, than in our major cities. For much of the past half century, the impact of technology on the traditional urban economy has been highly caustic. Cities have suffered the decimation of whole industries, such as shipbuilding in Baltimore, auto manufacturing in Detroit, and

textiles around Boston. Decline has been exacerbated as well by the migration of large corporate bureaucracies, leaving a legacy of abandoned shopping districts, ravaged neighborhoods, and broken people across the country.

Throughout the last decades of the twentieth century, this process was further accelerated by the growing inability of many urban governments to restrain tax increases, provide reasonable regulation of businesses, and maintain decent educational systems. Despite large increases in spending for schools, most city school systems have shown continued deterioration, as measured by graduation rates and reading and math scores. This has resulted in a mounting exodus of middle-class families, including growing numbers of minorities, out of central urban districts.²³

The deterioration process has led some, such as historian Manuel Castells, to define the postindustrial metropolis as by nature a "dual city," suffering from a kind of "urban schizophrenia," divided into increasingly ravaged and increasingly flourishing neighborhoods.²⁴ Yet this easy dichotomy has proved to be too simple. Even as the class chasm has widened,²⁵ urban centers across the country have been on the rebound, adding nearly 4 million new jobs, attracting new residents, and enjoying improved fiscal health.²⁶ At millennium's end, the two largest metropolitan regions, New York and Los Angeles, after lagging smaller regions for most of the past decade, led the nation respectively in aggregate payroll and new job creation.²⁷

This surprising development reflects not a resurgence of the urban economy based on mass industries and corporate bureaucracies, but the revival of an even older paradigm of city economies derived from times well before the onset of the industrial revolution. Like the postindustrial metropolis, the preindustrial city, existing before the era dominated by mass production of goods and services, flourished by

capitalizing on functions—such as cross-cultural trades, the arts, and specialized craft-based production—that could not be adequately performed by the far more numerically superior hinterland.

It is this pattern of urbanity that sustained the great cities of the preindustrial past, from earliest Mesopotamia to Alexandria, Rome, Venice, Amsterdam, and London. These cities exported products and services that the hinterland could not, whether it be Roman administration, Venetian glass, Dutch engineering skill, or British financial and insurance services. The opportunities created in these places lured a disproportionate number of the bright, ambitious, and talented people from around the periphery, and even more distant places, to the urban core, further strengthening its intrinsic advantages.

Fortunately for cities, the essential nature of the emerging postindustrial economy, based largely on the exchange of information, draws heavily on the unique attributes of urban areas. As commerce becomes ever more dependent on nonmaterial products, what the sociologist Georg Simmel identified as the psychological characteristics of urbanites—such as intellectualism, individualism, and the ability to abstract economic relationships—gain even more pertinence. ²⁸ The more the value of a product stems from its design, fashionability, or taste—whether that item is a garment, a piece of furniture, a stock, a movie, or an item traded over the Net—the greater the influence of the quintessential urban economy.

It is in this unique conjunction between urban culture and the emerging new economic paradigm that the successful cities of the future can be nurtured and developed. The basis for the future success of cities and communities exists, it could be said, in their genetic code, in their original and timeless function.

The current renaissance of cities gives the lie to the grim fate that has generally been predicted for our metropolises in the postindustrial era. At first the results of this shift appeared to be distinctly hostile to the very idea of cities; America, noted Irving Kristol in the mid-1970s, seemed to be bent on constructing "an urban civilization without cities." The ascendancy of science-based industry over traditional manufacturing created a new paradigm in economic development, shifting emphasis from the traditional urban center's ports, railroads, and large pools of manual labor to those places where concentrations of educated workers could be lured and harnessed. Anchored by complex organizations with vast research and development capabilities, the emerging science-based industries early on gravitated not to core cities but to the suburban and even hinterland areas such as Raleigh-Durham, the Santa Clara Valley, Orange County, the Route 128 area around Boston, and northeastern New Jersey.

Yet at the onset of the new millennium, this renaissance of the older cities has produced two consequences largely unpredicted during the early stages of the transition to a postindustrial economy, consequences that have recast the nature of the urban place.

The first result is that as the science-based areas have evolved and expanded, the older established areas themselves—largely 1950s- or 1960s-vintage midopolitan regions—have been transformed and have taken on the characteristics of urban areas. In this process, some areas that might have once been the forerunners of later vintage peripheral nerdistans now have become cities themselves.

On the surface they do often appear to be traditional suburbs. They're auto-dependent, consisting largely of private houses, and lacking large central cores. But these midopolis-dominated metropolitan regions—epitomized by Los Angeles, Houston, Dallas, San Jose, and Phoenix—represent less the antithesis of urbanism than its further evolution. Although they have downtowns of varying significance, most of the economic activity in these areas takes place in

scores of smaller, less concentrated economic districts spread throughout the metropolis. In this way, it is true, these places do not reflect the ideal shape of the nineteenth-century industrial city, with its concentrated, rail-oriented central core. But the industrial model of the city, epitomized by New York or Chicago, also would have been regarded as a perversion of the earlier preindustrial classical or Renaissance urban form, and it too only gradually came to be regarded as normal.

Despite the shift to digital communications, the economies of these regions display a powerful and quintessentially urban dependence on the need to congregate and network. This can be seen in places such as Silicon Valley, the Houston "energy corridor," which has the nation's predominant concentration of energy companies, research facilities, and support services, 33 or the vast Southern California entertainment complex, home to roughly one-half of all the nation's movie and television employment. 34 Companies congregate in these clusters—as their ancient, Renaissance, and industrial forebears did—to be near one another. Advanced industries are dependent on the same historic need for proximity, albeit defined in vehicular, not walking, distance, 35

At the same time, these areas are also becoming more like traditional cities both demographically and culturally. Once considered parochial by more traditional urban areas, these cities have themselves become entrepôts for both people and products from abroad; Los Angeles, Houston, Dallas, San Jose, and Orange County all stand as among the nation's leading immigration hubs. There are now definable ethnic enclaves—such as the vast Chinese communities of the San Gabriel Valley east of Los Angeles—in the midst of traditional suburban sprawl.

The second result, perhaps even less expected, is the digital economy's increasing tendency to favor locating at least some of its

activity closer to the urban core. Urban areas have particularly benefited from the increasing importance of culture-based content in the evolving new economy. In contrast to the first phase of the high-technology revolution—which focused on manufacturing, engineering, and the industrial application of science—the emerging second phase of the digital economy encompasses a whole host of more subjective skills more suited to the natural advantages of dense urban areas.

This phenomenon stems, in large part, from the changes within the digital economy itself. In a trend first identified by Alvin and Heidi Toffler, the initial pattern of technology development—clustered around large governmental and corporate organizations—has in its wake created a secondary form far more oriented to customization and creativity, which plays far more into the hands of more flexible networks of smaller organizations.³⁶

The new information economy, it turns out, has two faces, one "hard," built largely around quantifiable sciences and mathematics, and a second that focuses on the content of the messages that flow through the expanding information pipelines. These two aspects have created a split in the geography of the digital economy. The hard side, including such activities as the development and production of fiber optics and chips, remains very much concentrated in the nerdistans of the periphery. But the soft side, focused primarily on such fundamentally creatively driven fields as media, fashion, advertising, and design, has taken on a decidedly more urban cast.

Traditional cities have proved remarkably adept at exploiting such industries. As industrial, corporate, and hard-technology centers, major cities have declined, but their role as the creative fulcrum of society is, if anything, only increasing. The expansion of media-related industries has been central to this change. Online services, video

games, and multimedia software industries all grew dramatically in the last half of the 1990s; overall spending on "new media" expanded from \$7 billion in 1995 to roughly \$14 billion by the year 2000. Other media-related industries—cable, radio, publishing, broadcast television, film, and book publishing—are also expected to enjoy considerable growth.³⁷ This is all good news for cities, for reasons that will be examined in greater depth in later chapters.

THE NEW URBANITES

Since the essential geographic advantage of the core cities of today is their ability to attract a population capable of constructing an urban economy based on unique industrial niches—such as media, design, and fashion—these new urbanites are not, for the most part, drawn from the typical American middle-class family³⁸—a "trend" periodically trumpeted by the media since the 1960s³⁹—but by two distinct groups largely outside the mainstream.

One group is recent immigrants. At a time when most native-born Americans were fleeing the traditional cities, newcomers from abroad flocked to the metropolitan cores, particularly the creative centers of New York, Los Angeles, San Francisco, Miami, and Chicago. The newcomers have restocked the human capital of such urban centers, even as other towns face a continuing loss of population and economic vitality.⁴⁰

This group's penchant for living in the urban center has its basis in cultural as well as economic realities. As in the past, immigrants cluster in urban areas in order to create zones of familiarity with their compatriots, although today's newcomers have also been plagued by many conditions that afflicted earlier immigrant waves—including

crime, gangs, political corruption, concentrated poverty, and underemployment.

The energy of the newcomers has also brought long-distressed sections of inner cities back to economic vitality. The impact of immigrant activity was particularly critical after the recession of the 1990s, a period when many mainstream businesses fled the inner city and inner-city growth stagnated virtually everywhere. ⁴¹ By decade's end, minority-owned businesses, largely immigrant-owned, constituted over one-third of all businesses in Queens and more than a quarter of all firms in Brooklyn, Houston, and Miami. ⁴²

Nowhere was this process more notable than in Los Angeles in the aftermath of the 1992 riots. Some parts of the city, particularly in its southern and eastern expanses, were left for dead by many business leaders. Yet even as much of the old Anglo elite fled, many of these new urbanites not only stayed, but expanded. Some, predominantly from Asia, came to regard the region as an investment bargain and a "safe haven" from even more unstable conditions back home. ⁴³ Others took advantage of the depressed real estate conditions and a suddenly large labor pool, also largely made up of immigrants, to launch new businesses.

By 1997, well over a third of Los Angeles's businesses were minority-owned, contributing greatly to the area's unexpected economic resurgence. Newcomers, including "white" immigrants from the Middle East, had expanded into a number of highly specialized, classically urban niches, including apparel, textile, light manufacturing, and international trade. To the astonishment of most economists and academic experts, Los Angeles's share of the nation's "diversified manufacturing" actually grew, and between 1995 and 1998, it gained over 25,000 manufacturing jobs. 45

The second group of new urbanites consists largely of childless

people—aging boomers, childless couples, gays, "empty nesters," and singles. This is an increasingly significant portion of the nation's population. Nearly one-third of all baby boomers are single or childless or have one child, the largest such population in modern history.

In contrast to most middle-class Americans, particularly those with families, these demographic groups tend to hold a far more positive view of city life. For the most part, these are city dwellers by choice. They tend to like the pace and cultural offerings of cities.⁴⁷ During the 1990s, for example, New York City lost many middle-class families, but they were largely replaced by younger, better-educated people, many of whom considered the number of "cultural institutions" as one of the key reasons for settling in the city.⁴⁸

The decade-long reduction in crime rates in many favored cities—notably New York, Los Angeles, and Chicago—may also have accelerated this trend. 49 So too, in the first decades of the new century, will a sea change in generational demographics. Although baby boomers had fewer children than their parents, the size of their generation, the largest in history, was sufficient to create another large generational cohort. The Y, or "baby boom echo" generation—roughly twice the size of the now twenty-something X generation—will reach maturity and pass their parents' generation in total numbers by 2010,50 which raises the promise of a new generation of young, single, unattached, and childless professionals who, in the past, have shown a proven proclivity for city living.

These often-unattached new urbanites constitute the critical fuel for the postindustrial urban economy. Companies, wherever they might be located, rely increasingly on skilled urban professionals in fields from fashion design, entertainment, and Internet commerce to international trade, investment, specialized retail, banking, and other business services. This demand can be seen in the surge in demand for

programmers during the late 1990s in urban areas such as New York, Boston, San Francisco, Seattle, and Los Angeles.⁵¹

The growth of the Internet industry—with its expanding need for design, marketing, and other creative skills—has also increased the demand for nontechnical professionals, such as writers and artists, who traditionally were in slight demand by traditional hard-technology firms. "You can put a chip firm in Boise, Idaho, but you'll never have a major media play operating there," observes Tom Lipscomb, founder of Infosafe, a New York—based multimedia software firm. "You can't get the kind of creative people you need to move to Plano, Texas. They want to be somewhere they sense there's action."

As a result, some of the largest concentrations of Internet companies—and the greatest concentration of Internet hosts—are not in suburban areas but in heavily urban areas, such as the South of Market section of San Francisco, which by 1997 had become home to some two hundred multimedia companies. Contrary to notions such as those espoused in the 1960s by the French sociologist Alain Touraine, who saw an inevitable "lessening" in social relationships as a result of the postindustrial society, the new digital industries are largely sustained by interaction between specific groups who seek out and find one another uniquely in the urban milieu.

CLASS AND COMMUNITY IN THE DIGITAL ERA

n some senses, the new technological paradigm offers the promise of something for every kind of community: the hope of revived culture-based industries for the cities, continued growth in techno-

logical hotbeds on the metropolitan periphery, and new opportunities for businesses in remote hinterland areas. Buoyed by the boom of the 1990s, and perhaps a touch of millennialist enthusiasm, some analysts see in the emergence of a new economic golden age what one writer prophesied on the cover of *Wired* magazine as "twenty-five years of prosperity, freedom and a better environment for the whole world." MIT's Nicholas Negroponte sees "digital technology" as "a natural force drawing people into a greater global harmony." 55

This enthusiasm repeats that of past eras of technology-driven economic progress, most notably that at the beginning of the twentieth century. Edison, for example, believed that electricity would come to do everything, including improving women's mental capacities, eliminating the need for sleep, and communicating with the dead. Visions of technological paradise have always captivated a broad range of people, from fascist futurists to the optimistic democrats who designed the 1939 World's Fair. 56

Yet when considered from a longer-term perspective, it may well be that prosperity, as the Roman historian Sallust noted two millennia ago, "wears out the minds of the wise." ⁵⁷ As was discovered during the Industrial Revolution, the existence of great new technological tools does not by itself solve the essential problems of human relations and community. Industrialism ultimately did bring great wealth, and new comforts, to masses of people, yet only after decades of mass social dislocation, massive pollution, and the destruction of much that was good in the preindustrial order.

This combination of benefit and detriment could also apply to the current technological revolution and its potential impact on society and community. As Daniel Bell argued almost three decades ago, the nature of postindustrial economy is such that it can serve to divide

and individualize, ⁵⁸ breaking people into more nonspatially oriented interest groups, epitomized in our time by the rise of chat rooms on the Internet. If the new technology invites utopian visions arising out of equal access to information, it also now adds "knowledge" to property as one of the "fundamental axes" of stratification. ⁵⁹ The new technology gives rise to real hope for better, more livable communities, but it also conjures up a vision more akin to the polarized, polluted, and decayed twenty-first—century Los Angeles of the movie *Blade Runner*.

Indeed, as the economy has shifted from a manufacturing- and resource-based economy to one centered on services and information, both society and community have been put under new strains. Once it was much easier for a modestly educated person to get a well-paying, often unionized job with good benefits at a factory, lumber mill, or oil refinery. Wealth, or at least access to a decent life, could be found in a host of communities; often even the elites were forced to live in or near places with the necessary workers, raw materials, waterways, or highways, even if they were also cold, or simply aesthetically unpleasant. And where the wealthy live, they tend to invest.

As information and intelligence have become the prime drivers of the economy, many less-favored places have suffered grievously. An economy largely dictated by the locational preferences of an aristocracy of talent—who can live where they want and dictate of geography of wealth—has meant that less desirable places, and the people left behind in them, often gain little, or actually lose ground, even during a period of sustained economic growth.

Such a fate can be found to cut across regional, sectional, and ethnic lines. Poverty blossoms in rural areas, where traditional ranching, mining, and farming economies have declined. There is little incentive for newcomers to make a new life in the harsh poverty of the environmentally devastated Southern or Western coal-mining towns or smaller farming communities, where relatively few people have computers or Internet access. 60 For many native Westerners, particularly those without land, life more often means living in one of the ubiquitous trailer parks. Trailer parks now house one out of every six people in the rural intermountain West. 61

The same polarization can be seen in the greatest of American cities, New York. Gushingly labeled "the champagne city" by *Vanity Fair*, ⁶² 1990s Gotham had the most pronounced disparity in America between the rich, on one hand, and the middle-class and poor on the other. Those with leverage are thriving as never before, as evidenced by a huge expansion in the numbers of affluent people. Those without, however, are doing without; 44 percent of New York families have no assets, more than three times the national average. ⁶³

This disparity has distinct geographic repercussions. Even in the best of times, poverty has persisted, even worsened, in many working-class and minority areas, such as New York's Bronx, Brooklyn, and Queens. By 1997. Manhattan accounted for nearly four-fifths of the entire payroll of the five boroughs, twenty times that of the Bronx and ten times more than that of more-populous Brooklyn. These outlying areas had per capita incomes that by the early 1990s, notes economist Robert Fitch, were closer to those in Detroit than to those in Manhattan.⁶⁴

Bridging these gaps and creating a more cohesive sense of community between those living in regions largely outside the digital economy and those within could well represent the greatest challenge of the new millennium. Today most business, professional, and political elites see the future of their cities as connected almost exclusively

to the growth of a few coveted high-end information industries. Attracting capital, corporations, and talent, from the rest of the country or abroad, often becomes the primary focus of their economic development activities. Even in times of budgetary stress, and in the face of enormous public debt, big cities such as New York and many smaller ones have lavished hundreds of millions to retain large multinational firms as a primary part of their economic development strategy.⁶⁵

Yet for future communities the most pressing challenge lies in building and cultivating the skills and energies of their own people, both as entrepreneurs and workers. Successful cities in their prime—like Florence in the fifteenth century, Amsterdam in the sixteenth, London in the nineteenth, and New York for much of the twentieth—have been often driven by grasping "new men" from the countryside, abroad, or even their own slums. 66 Writing about New York in the 1950s, Jane Jacobs observed, "A metropolitan economy, if it is working well, is constantly transforming many poor people into middle class people Gries don't lure the middle class, they create it."67

This notion of a grassroots-driven economy is even more relevant in an era when large companies are increasingly rootless and most new job creations stem from smaller, upstart firms. A quarter century ago, for example, Fortune 500 companies provided one out of every five private-sector jobs; today that ratio is less than one in ten.⁶⁸

To thrive in an era of ever widening locational choice, communities must look into those factors—including those relating to lifestyle and cultural choices—that appeal to a broad range of entrepreneurial companies. Rather than focusing obsessively on large firms or symbolic projects like stadiums or tourist destinations, or simply seeking to cut taxes and provide financial incentives to favored large firms, com-

munities need to emphasize those things that lead individuals and companies to remain in a particular place of their own accord. An atmosphere open to the flexible arrangement of living and working, that preserves the intrinsic character of a place, fosters ad hoc cooperation between related firms, and provides the basic security for business operations, represents a more "progressive" economic policy than that usually suggested by most activist governments.

Ultimately, whether these sorts of policies can be adopted and implemented rests fundamentally not on technology but on the will of individuals and communities, on the rediscovering within communities of their unique sense of citizenship and civic purpose. As late as the mid-1950s, sociologist E. Digby Baltzell could still talk about "goal integrating" and assertive elites committed to the fate of Philadelphia. New York elites, notes former Tammany Hall boss Edward Costikyan, may have been ruthless and self-interested, but they identified themselves explicitly with Gotham; the same can be said of leadership groups in Los Angeles, Chicago, and any number of smaller towns and cities across the nation.

In this sense, perhaps more than any other, the great cities of the past, and their cultures, loom most impressively as models for those communities seeking to secure their place in the geography of the future. The citizens of the ancient Greek *polis*, the Italian city-state, and early modern Amsterdam and London all shared a peculiar passion for the mythology, history, sites, sounds, and smells of their cities. This remains the critical intangible element in urban culture. Even in a virtualized world, cities remain, as Jane Jacobs noted, "thoroughly physical places."

In the twenty-first century, and even beyond, communities can only survive and prosper by being something more than soulless zip