

Building on Local Information Assets

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Being rural may also be “cool.” As locally developed information assets become the keys to economic success, rural areas need not be left behind. All communities have the opportunity to benefit from capturing and using their local knowledge. In this new age of information and knowledge, rural areas can continue to thrive by being the special places they are.

America is in transition to an information economy. For our nation’s rural areas, the challenge of this transformation is especially acute. Too often left out of the economic mainstream, they are in danger of becoming backwaters of the changes flowing rapidly all around them. Yet the opportunities for these areas are as real as the dangers. The economic rules are changing; local information assets are becoming an important factor in economic development. These changes can help rural areas leap into the economic mainstream—or they can leave these areas further isolated.

It is now a generally accepted principle in economic development that communities should build on their strengths. Mapping of a community’s assets is becoming a standard component of economic and community development. But what are a community’s strengths in the global information economy? How does a community discover, foster, develop, and use its local assets? Which assets are truly important in this new economy?

Economic activity is no longer merely a process of combining capital, energy, materials, and labor. Growth in the industrial era was achieved by a process that economists call capital deepening. Costs were driven down by economies of scale; productivity increased through incremental changes. In addition, new technological breakthroughs created new products and entire new industries.

In the information economy, growth is achieved through relentless innovation and the application of knowledge. Economists who have studied this process (often called New Growth Theory) describe knowledge as very different from other factors of production such as capital and labor. Knowledge and information are what they call “non-rival,” meaning that more than one person can use them at the same time. For example, many people may be reading this article at once. The ideas, concepts, and information contained in this article can be used in many communities simultaneously.

As a result, spillovers from knowledge make the accumulation of knowledge self-perpetuating and not subject to diminishing returns. This kind of world is different from the physical world, where laws of energy and laws of economics dictate diminishing rates of return on the use of labor and capital. In other words, knowledge creates more knowledge, which creates yet more knowledge. It is the closest thing we have to a perpetual motion machine—a perpetual idea machine.

And it is not just technological advances. Knowledge and information comes in many forms and can be used in many ways—such as expanding consumer choice through more customized products, more individualized service, and greater attention to aesthetics in order to respond to changing consumer tastes.

In the late 1990s, Danny Quah of the London School of Economics began talking about the “weightless economy”—a phrase that Federal Reserve Board Chairman Alan Greenspan has used repeatedly—to describe how more and more of our economic activity has little or no physical manifestation. It is not just services, but knowledge-based goods like software and music—so-called intangibles. Leonard Nakamura of the

Federal Reserve Bank of Philadelphia says the value of U.S. gross investments in intangibles is more than a trillion dollars annually. These intangibles include research and development, advertising and marketing, software, financial activities, and creative activities of writers, artists, and entertainers. In their book, *Invisible Advantage*, management consultants Jonathan Low and Pam Cohen Kalafut describe a set of intangibles that drive business performance. Based on years of research, they documented the importance of intangibles such as organizational leadership, technology and business processes, human capital, workplace organization and culture, innovation capacity, intellectual capital, brands, reputation, and alliances and networks.

Knowledge, information, and intangibles drive our innovation process. Not all innovation comes out of the research lab. In fact, creative new design and new uses for old products are key parts of innovation. Those ideas bubble up from customers and front-line workers as well as from managers and researchers.

Thus it is really a combination of factors that is powering this new economy. It is an Information, Intangibles, and Innovation Economy (I³ or I-Cubed Economy).

Intangibles cover not only what we normally think of as intellectual capital—patents, copyrights, and so on—but also tacit knowledge or know-how. Explicit (or formalized) knowledge is the codified body of knowledge captured in books, scientific formulas, and blueprints; tacit knowledge is the intuitive and experiential part of our knowledge base. Both are needed. Formal knowledge provides the “know-what” needed for technical progress. Tacit knowledge provides the “know-how” to apply that formal knowledge. An expert is someone who not only has a command of the formal knowledge of his or her field but also has the ability to develop and make use of the relevant tacit knowledge—be it a line worker in a paper mill, a brain surgeon, or a computer software developer.

In this I-Cubed Economy, local economic development requires identifying and using these information and intangible assets, especially the tacit knowledge embedded in local worker experience. Tacit knowledge is found in every situation and in every location. In international development, such localized knowledge is often called “indigenous” knowledge. The World Bank describes it in these terms:

Local, in that it is rooted in a particular community and situated within broader cultural traditions; it is a set of experiences generated by people living in those communities.

Tacit knowledge and, therefore, not easily codifiable.

Transmitted orally, or through imitation and demonstration. Codifying it may lead to the loss of some of its properties.

Experiential rather than theoretical knowledge. Experience and trial and error.

Learned through repetition, which is a defining characteristic of tradition even when new knowledge is added.

Constantly changing, being produced as well as reproduced, discovered as well as lost; though it is often perceived by external observers as being somewhat static.

Tacit knowledge is based only in part in the individual; it also resides in the special circumstances and situation of the community. It has long been known that industries cluster together in certain geographical areas. Economists have shown that this clustering effect stems from more than simply location of physical resources. Sharing of knowledge, especially tacit knowledge, is a key ingredient in cluster formation. Tacit knowledge is “sticky”—it is not highly mobile or easily transmitted over telecommunications lines. There is the importance of “being there.” Thus, place still matters in the information economy.

Rural areas are often thought to be at a distinct disadvantage in this race to develop intangible assets. For example, it is difficult for rural areas to put together the scientific and research assets needed for technology-led economic development. Likewise, following the notion of Richard Florida’s *The Creative Class*, more and more urban areas have latched on to the notion that “cool” is a defining intangible asset on which to build their economic base. These assets are commonly seen as an active nightlife, arts, and entertainment centers that will attract creative young people. Rural areas generally don’t have the agglomeration of such features.

But recent studies show that rural areas and smaller communities may be better suited to commercialization of new products (a specialized form of “innovation”) than to scientific and technical innovation. And small-town and rural life styles have their own appeal as “cool.” What sells is a unique or distinct approach—that important intangible asset of “brand” that more and more communities are beginning to recognize.

Examples abound of rural communities or regions that have used local knowledge to spark development. The Appalachian Center for Economic Networks (ACEnet) in Athena, Ohio, has created a local economic cluster centered on the specialty food products industry. Other examples are film-making around Wilmington, North Carolina; windsurfing-related sporting goods and apparel in Hood River, Oregon; fishing gear in Woodland, Washington; snowmobile manufacturing in northern Minnesota; and houseboat manufacturing in Kentucky. These areas, and many others, show that it can be economically “cool” to be rural. ■