

Innovation as a Journey into the Future

| By Irving Wladawsky-Berger |

I recently read an excellent innovation report, [“Strategic Orientations for Innovation: Chile in the 2025 Horizon”](#), which naturally focuses on Chile, but offers many findings and recommendations that apply to the U.S. and most other advanced and [emerging](#) economies.

The document was developed by Chile’s [National Innovation Council for Competitiveness \(CNIC\)](#), a public-private organization charged with providing advice to strengthen innovation and competitiveness in the country. The report was [presented](#) to Chile’s President [Sebastian Piñera](#) on August 6.

But this is like no innovation document I’ve read. While the “Strategic Orientations” report recommends the long term initiatives Chile should prioritize—energy and sustainability, biology and life sciences, education, and the development of an innovation culture—it’s how the report expands our idea of innovation by asking readers to look at it in a more historical timeframe that makes this report stand out.

The language is also more literary than is typical for technical or business documents. This is not surprising since the report’s author, CNIC head Fernando Flores, is an accomplished writer in both English and Spanish. He has a Ph. D from UC Berkeley and has worked extensively as an entrepreneur and consultant in computer science, human cognition and organizational leadership. He has written a number of books, including [“Understanding Computers and Cognition: a New Foundation for Design”](#) and [“Building Trust: in Business, Politics, Relationships and Life”](#).

I first met Mr. Flores during a [trip to Chile](#) in August of 2006 to attend a conference. He was a Senator then, a position he held from March of 2002 until his appointment to president of the Innovation Council. We discovered that we had a number of common interests – in addition to our common language – and have since become friends and [met](#) a number of times in Chile and the U.S.

The report admits that many view innovation as being primarily the combination of science, technology and creativity that gives rise to new products and services. Mr. Flores believes that this is too limited a view. To really understand its power and the role it has played throughout human civilization, he asks us to look at innovation in a more historical timeframe. Innovation is essentially how individuals, communities and institutions deal with periods of

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accelerating changes and historical transitions. This is why, given our ongoing [transition](#) from the industrial economy of the past two centuries to a new information-based economy, we've been so focused on innovation over the past decade and are likely to continue to do so well into the future.

These accelerating changes are shaking our most fundamental beliefs and assumptions. They include economic and cultural globalization, longer life spans, the empowerment of individuals and communities and potentially serious disruptions to the planet's ecology. "We should all think of ourselves as new immigrants to our present hyperconnected world," is how NY Times columnist [Tom Friedman](#) [characterized](#) our times at a September 2011 [conference](#) I attended. We're travelers in an uncertain journey that is fraught with the perils of [creative destruction](#) as well as the promise of exciting new opportunities. But, we have no choice but to embark on the journey, despite not quite knowing where we are heading or what major disruptions lie ahead.

Successful innovations require three major forces to come together. First is the creative and entrepreneurial capacity to understand what the market is ready for and be able to come up with the right ideas for new products and services. But, to develop and bring them to market, you also need the right ecosystem—including technologies, tools, production, sales channels, support services, marketing and finance. Finally, customers have to be ready to change, break with the past and embrace the innovative, new products and services.

Innovation is thus the result of a highly complex, dynamic ecosystem, not unlike the ecosystems you find in [evolutionary biology](#) that have given rise to the diversity of life in our planet. In addition, innovation involves complex interactions across multiple time horizons, from the near-term incremental improvements to mature products to the long term emergence of highly disruptive innovations and new scientific disciplines.

Companies and economies must continually improve their existing products and services through incremental innovations as well as extensions to adjacent markets. But, they also need to understand the major long term technical, economic and societal changes and develop a vision of the future. Such a vision is needed to help guide the company's major directions, including which [learning curves](#) they should get on. Without it, the company runs the risk of missing the big picture and getting left behind by a fast moving world.

Mr. Flores proposes an innovation style for facing such an unpredictable future, which he calls surfing history. It is similar to the style of successful entrepreneurs. It requires overcoming our fears of change and uncertainty, and transforming our concerns for the future into concrete actions and commitments in the present.

The analogy to surfing is intriguing. Surfers can never be sure how

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"It's no longer possible to think about the future as something fixed and predictable," writes Mr. Flores. "On the contrary we understand it as the horizon of possibilities that is being built with our actions today. Although the sum of those actions can lead to unpredictable results, the responsibility of politics—to present and future generations—is to anticipate possibilities and to build orientations that allow us to draw routes ahead and take actions . . ."

the waves will flow. And they must be on watch for dangerous waves that can potentially hurt or even kill them. “Though the surfers cannot go anywhere they please—it would be naive to pretend to control the sea— by remaining in constant harmony with the waves and receptive to what appears, they can find the space of stability and a path forward,” writes Flores.

“To surf the emerging waves of history we must free ourselves from the more pragmatic conversations. Those are the most common and daily conversations, the ones we operate with in an established world of things, institutions and roles in order to meet our daily needs and desires. Beyond pragmatic conversations, the history surfers engage in conversations that disclose new worlds, tuned to anomalies that suddenly come to light as new horizons . . . This kind of courage that we call radical hope emerges from the confidence that humans will keep moving forward, reinventing the meaning of our existence.”

Let me conclude by saying a few words about a couple of the long term initiatives that the “Strategic Orientation” report recommends Chile should focus its efforts on.

In biology and the life sciences, for example, the report notes that a revolution is under way that will have global impacts on health, food, energy and the environment. This revolution is being driven by the aging of the populations in much of the world, which is significantly increasing the social costs of dealing with older adults; by personalized medicine, which will transform the health care industry around the world and will ultimately lead to longer and healthier lives; and by synthetic biology, which promises major scientific advances in food and energy productions but also raises many questions concerning genetically modified organisms.

On education, the report observes that the deep future changes we expect demand equally major changes to our educational systems. High school education must take responsibility for motivating young people by creating spaces where they can discover that learning is an important and exciting adventure they will be involved in through their whole lives. Higher education, which is increasingly a requirement for decent jobs in our knowledge economy, must reduce its rapidly rising costs which are keeping a quality education out of the reach of so many young people around the world. The advent of [massive open online courses \(MOOCs\)](#) and other forms of [online and hybrid](#) learning promise to radically expand access to low-cost quality education around the world.

“The work of the Innovation Council is similar to that of the historian. The historian creates narratives about the past that should be consistent with the evidence of events or processes that occurred years or centuries ago and that allow us to recognize what we are. At the Innovation Council, we look for an understanding that, being consistent with the subtle trends that start to configure the future, can help us to illuminate the present and to outline possible future paths, threats or opportunities.”

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