

## All About Innovation

An Interview with John Kao,  
Chairman, Institute for Large Scale Innovation

**EDITORS' NOTE** John Kao calls himself an innovation activist. He is Chairman of the Institute for Large Scale Innovation (ILSI), whose 120 group is an association of 25 national chief innovation officers. He has advised numerous nations and regions on innovation strategy and execution, including Finland, Singapore, the San Francisco Bay Area, Abu Dhabi, and elements of the U.S. government as well as the European Union innovation policy team. Kao was a member of the Harvard Business School faculty from 1982 to 1996, where he created executive and M.B.A. programs on innovation. He is the author of *Jamming: The Art and Discipline of Business Creativity*, a *BusinessWeek* best-seller, and *Innovation Nation*. Kao serves as Director of the Bay Area Science and Innovation Consortium, founding member of Cisco System's Innovation Commission, and Chairman of the Global Advisory Council on Innovation of the World Economic Forum. He is contributing editor to



John Kao

*The Daily Beast's* innovation channel and is a director of *twofour54* and *Phylotech*. Kao is also a Tony-nominated producer of film and stage. He is a graduate of Yale College (philosophy), Yale Medical School (psychiatry), and Harvard Business School (management). In 1969, he apprenticed to rock legend Frank Zappa.

**With the major focus today around innovation, has it truly come to have more significance, and is it hard to define innovation?**

It's not hard to define innovation; the problem is that most people make limiting assumptions about what that definition is.

Very often, innovation is used loosely as a synonym for cool ideas or the good stuff, as opposed to the conservative, we're-never-going-to-change stuff, and that won't do in an era in which we face the kind of challenges to both the private and public sectors that we do today.

Innovation isn't just about creating new products or services that have value – that would be a decent definition if you were just talking about what companies do in a narrow sense.

I'm interested in changing the optics when we look at innovation as a societal, as opposed to an enterprise, issue. Societies are not primarily in the business of earning a margin on new products; they're in the business of ensuring security and welfare, education, and well-being for example, as well as pursuing the grand human adventure.

So I define innovation as a set of capabilities that are possessed by individuals, teams, countries, or geographies that allow the continuous realization of a desired future.

Innovation is always about purpose, and it comes alive when we focus on what it is that we want. Innovation as a domain is hot once again because we're in an incredibly turbulent era, where traditional models of governance and corporate affairs don't necessarily hold water anymore, where disruption is everywhere to be seen, and the only way you can get from today to a desirable future is to innovate, by which we mean to change the way we do things, to change the products and services we traffic in, and to change our perception of things, all with an eye towards some sense of what we want.

**There is a debate over whether the U.S. is losing its innovative edge as we're seeing innovation from many of the emerging markets. How much does that concern you long-term for U.S. strength in the global economy?**

There has been a significant shift in the innovation strengths of the U.S. relative to the rest of the world, and there are two reasons for that: the first is the undeniable set of facts surrounding an erosion of America's innovation edge, whether you look at public education or recruitment of young, talented people into science and technology related fields; or in terms of the policy instruments that we apply like research tax credits relative to other countries; or in terms of our work ethic and values. We're guilty in some respects of a third-generation psychology, which is that the previous generations started and built the advantages that we as the third generation are in the process of consuming.

The other undeniable is that the rest of the world has gotten a lot better at innovation. But we should be very happy about that. A world filled with innovation capability and innovators is a much more hopeful world.

In 1945, the U.S. was the industrial powerhouse of the world, and everybody wanted to come here – people wanted to live the American Dream.

In 2010, the situation is dramatically different. There are now at least two dozen countries that have sophisticated national innovation strategies and chief innovation officers, and that spend a lot of money explicitly on building innovation capability – many of these countries have national innovation agendas which, in a holistic sense, are more involved even than what we have here in the U.S. Places like Rwanda and Chile might surprise you in terms of how sophisticated they are about innovation policy.

At the same time, there is a temptation to overdramatize the U.S. situation. The fact remains that by most metrics the U.S. is still at the top of the list in terms of its production of intellectual capital and its share of talent.

The issue has to do more with the trend line, because the rest of the world is progressing at a rapid rate and we seem to be, in terms of our innovation muscles, at best at a plateau or declining.

**Many businesses talk about the ability to be both entrepreneurial and innovative – as you build the business, you grow it. But when you get to a certain size and scale, is it difficult to maintain innovation as a critical part of the culture?**

There is no doubt that growth creates new challenges for innovation. The requirements for success in a large company have a lot to do with control and accountability systems along with more well-defined ways for allocating capital, moving people around, and setting priorities. A lot of that is because you spend more and more time dealing with yesterday as opposed to tomorrow. When you start a company, everything is about tomorrow, because there is no yesterday. By the time you get to the size of a Fortune 100 company, you have a huge amount of legacy. You may also be looking towards the future, but to be entrepreneurial in an established setting like that requires managing differently.

So if you want to do the same things better, you can set up new kinds of internal oversight mechanisms. But if you want to do different things, if you want to engage in what literature calls “disruptive innovation,” you may need a separate platform and a different kind of counter-culture that runs parallel to the established organization.

Every incumbent has to learn to think like an insurgent or a start-up, to a certain extent. That requires attention to what kind of people you recruit, how you organize in terms of structure and processes, how you make investments, and active consideration of whether you need a different kind of organizational platform to support new kinds of activity.

**You spent a number of years teaching at Harvard Business School, specializing in innovation and entrepreneurship. Can you truly teach entrepreneurship or is one born with that ability?**

With education, you can give people a kind of pattern language or a set of sensibilities and antennae about what can go wrong and how things might go right.

The great thing about the case method that underlies Harvard’s approach to business education is that it’s an opportunity to dip vicariously into the experience of lots of people who have done lots of things, and then to internalize that experience for yourself.

I can teach anybody the basic skills of being an entrepreneur, but I can’t teach him to be someone like Steve Jobs, who through a unique combination of personal experience, context, and luck has progressed to a level where they’ve become visible to a collective culture. A relevant metaphor is music. Anyone can learn to make music out of a piano, but there’s only been one Mozart.

**What was your thinking and purpose behind the creation of the Institute for Large Scale Innovation, and how has the I20 evolved?**

The ILSI was set up to define and drive a global agenda for innovation. We’re not used to thinking about innovation as a global resource, a set of capabilities, opportunities, and challenges. But regarding the problems that affect global civil society – climate change, new approaches to education or wellness, dealing with problems of the elderly, integrating social media into the fabric of governance – every one of those is a global issue.

At the same time, most of our knowledge about innovation has been derived from the study of companies, and it’s difficult to generalize from the study of companies to the study of countries, let alone the global system.

In the ’70s, The Club of Rome got started out of the perception that one needed to take a systems approach to looking at the environment. So we had to start thinking about the world as a unified system of ecological checks and balances surrounding a finite resource base. Something similar animates the purpose of the institute. We now need to think about investment and setting priorities for innovation with some degree of global alignment. What I’m not after is a global master plan. Rather, I’m inter-

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ested in creating a community among senior people who have influence over their national innovation agendas, so they can begin to know each other and share best practices as well as a common language and framework.

So the I20, our cardinal accomplishment to date, is a global association of national and in some cases regional chief innovation officers around the world. It’s about bringing them together to create alignment and support strategic conversation around global agendas and grand challenges. It has been a remarkable process because most of these people didn’t know each other, and are now pleased to belong to a reference group where they can share best practices and ultimately try to make the world a better place.

**With the current regulatory environment, is it more challenging in the U.S. for entrepreneurs to build the companies that we’ve seen built over the years, and to be as innovative?**

A lot of these regulations are in place basically to protect investors or to preserve some degree of financial and social stability. So I would not say all regulation is bad by any means.

The biggest asset that America has is its culture of risk-taking and forgiveness of failure, despite the challenging times we’ve gone through recently. The notion that somebody can assert an idea, get funding without much documentation, and perhaps fall flat on his face and then pick himself up and start over again, is a series of behaviors and events that is largely impossible in most other countries. And it remains to this day our biggest source of competitive advantage.

In terms of the regulatory zeal sweeping Washington currently, while there are many good reasons for it, the hazard is they will begin to squeeze some of the life out of the entrepreneurial system. I refer specifically to legislation on the table to make it more difficult for angel investors to put money into new companies, notions of taxing the returns to partners of venture funds at ordinary income rates, and other related initiatives. Every regulation that slows down the innovation process is in some respects going against the kind of competitiveness that results from being agile and first to market.

So it’s about a kind of balancing act. The entrepreneurial ethos is fragile at best, and other countries have never had it or there are so many obstacles piled up in front of entrepreneurs that they never start or if they start, their ventures remain at the 5 to 10 person level – that doesn’t create great companies or wealth for an economy or society. So regulators should tread with caution.

**Was this an area of interest for you very early on?**

One of the I20 members said that I was someone for whom innovation was a way of life, which felt like a big compliment.

When you look at my eclectic career, all of my experiences have informed the way I approach innovation and add to my value when I interact with other people, because I can usually bring a fresh perspective to the table. That is partly why I’m allergic to the idea that innovation is one kind of approach – just the economic lens of analyzing inputs and outputs, for example – because I know intuitively, having worked with production teams in Hollywood or start-up teams in Boston and San Francisco that there is a certain ineffable process to innovation that you can never completely quantify or analyze. There are the quantifiable portions as well, but you have to maintain a broad perspective.

When I was 10, I discovered a science fiction book about an interplanetary expedition. Right before the ship was going to take off, a guy came on board from something called the department of nexialism, which was a discipline combining psychology, military theory, organizational theory, engineering, and a lot of communications techniques. This guy averts disaster for the whole ship and turns out to be the big hero.

I remember thinking to myself, I’m going to do that when I grow up. I then discovered that it was a discipline that didn’t exist. So in some respects, I could argue that I’ve been trying to recreate it throughout my entire career. ●