

The Seventh Career: Building an Innovation Keiretsu

Conversation with John Kao, The Idea Factory, San Francisco, April 12, 2000

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Ikujiro Nonaka, Claus Otto Scharmer

Claus Otto Scharmer: John Kao, what underlying question does your work address and how does it relate to the context of your journey?

I. Childhood: Multiple Contexts

John Kao: When Professor Nonaka introduced me to an audience, he said that I came from many contexts, which probably related to my interest in the subject of innovation and creativity.

It's hard for me to pin down the one context I come from. I've been filling out lots of legal and financial forms recently for a project I'm doing, and sometimes they ask for my occupation. I often leave that item blank, because I just don't know how to answer that question.

The first conditioning factor for me was that I was born in the United States to parents who had come to the U.S. only a couple of years before from China. My parents were academics, graduate degree types of people, who had to make the leap to being new immigrants from China.

Growing up, I would wake up inside a Chinese house, leave and go into an American society to an American school with American friends — then come home again to this Chinese house.

COS: Where was this?

John Kao: New York. But the point is that every day I had to make this transition from one world to another and then back again. My challenge at a very early age was to take these two different and often conflicting contexts and put them together in a way that allowed me to live my life.

In the 1980s when I was teaching at Harvard Business School, I would get on a plane and fly to L.A. once a month, where I spent several days working on film projects as a movie producer. I would change contexts from the academic environment to Hollywood and then back again. My life has always been about making these journeys back and forth between different contexts.

II. The First Six Careers

I've had a number of different career goals, so maybe one of my specialties is serial retirement.

Career 1: Musician

My first career goal was to be a musician: I wanted to be a concert pianist. Nobody told me that there were only twenty people in the world who make a living by being concert pianists.

My music interests varied. When I was in college in the '60s, I wanted to be a rock and roll star. The high point of my musical career was spending three months playing with Frank Zappa and the Mothers of Invention in L.A. when I was eighteen.

Career 2: Jungian Psychoanalyst

It was hard to improve on that, so I decided that I wasn't going to be a musician; I was going to become a Jungian psychoanalyst. I had spent a lot of time in university reading philosophy and psychology, and Jung appealed to me because he had a very integrative perspective.

To do that, I had to go to medical school — which I did — and then I did a residency, a post-doctoral program in psychiatry, at Harvard Medical School. Then I decided that I didn't want to stay in medicine, because I did not want to be a researcher in an academic medical environment or a clinician. But I learned an incredible amount that was valuable and continues to be valuable to me today.

Career 3: Professor at Harvard Business School

In 1980, at the age of twenty-nine, I became a first-year MBA student at Harvard Business School. I figured out a way to have it count toward my medical training, and I won a fellowship that paid my expenses, so it was not a hard decision to make.

In the spring of my first year there, they invited me to join the faculty, which was somewhat unusual. They were very interested in my psychiatric background. They thought they did not have enough of the soft stuff to offset the more traditional business disciplines.

The other job I considered seriously was becoming the head of a film production company in Hollywood. I decided that being an assistant professor at Harvard Business School was better because it would allow me to do more different kinds of things.

I joined the faculty in 1982. A year into that, I said I wanted to start my own course on entrepreneurship and creativity. This provoked a really ambivalent response. A lot of my colleagues warned me that this was not a good subject to teach. It was too soft, and everything was known about the subject already, so "don't risk your career." That, of course, was a real invitation to go forward rapidly, because when people are opposing you that hard, it often means there's something good to be done there.

I launched a course that became "Entrepreneurship, Creativity, and Organization." It was a hit course. Something like 1,900 Harvard MBAs took it. The reason I was able to stay at Harvard for fourteen years was partly because the students responded. The students knew there was a new economy that had to do with entrepreneurs and high tech and entertainment. I had cases on George Lucas and Richard Branson's Virgin Group and the video game industry and Lotus Development Corporation when these were not considered important companies.

I stopped wearing a suit and tie to class fairly early. Harvard faculty had this norm that you had to dress like an executive when you were teaching. You had to have a really expensive suit and shiny shoes and everything. I started wearing jeans or chinos and sweaters.

COS: Really, you did that?

John Kao: Oh, yeah.

COS: Cool.

John Kao: Some of my colleagues were very offended. I said, look, all the people I'm studying — who are real CEOs of real companies — dress like me. They don't wear suits. How can I wear a suit if I'm going to teach material about their companies?

I don't know that they were convinced, but in any event, that's what I said.

So career number three, I guess, was Harvard professor. During that period I began to start companies. The typical faculty extracurricular activity is to teach executive programs or do some consulting. I thought, why don't I take my day a week and start some companies?

Career 4: Founding and Co-creating Companies

In 1986, I started a biotech company that was in the tissue engineering business. If you have a burn, we take a little bit of your skin, we grow it in a lab, we give it back to you. It's your skin, but it's 10,000 times more. It can cover your body if you have bad burns or some other kind of problem. Now they manufacture cartilage and other kinds of tissues at that same company.

The company was financed by a blue-chip roster of venture capital companies and ultimately went public. There was a period where I was the first person working on this company. The company was just a pile of paper on my desk. I found the CEO, wrote the business plan, raised the money, and over about six months pulled it together.

COS: And where did that idea come from?

John Kao: I knew a scientist at Harvard Medical School who had originated this technology. He wanted somebody to do something with his patents, because people were calling him all the time. People who had been severely burned had no place to go because there was no curative treatment in those days. I knew this guy personally, so it was kind of a ready opportunity.

I thought to myself, gee, that's amazing. I sit around a day a week for six months and I've got these papers and I talk on the phone and then all of a sudden, I've got this company, and then all of a sudden, it's worth something. So, anyway, that's when I began to start companies, of which I've now done about ten.

COS: Ten?

John Kao: The Idea Factory is number ten. About three years ago I decided that my time at Harvard was over. Part of the reason was that when you have somebody like me in an institution who is not a standard guy playing by the standard rules, you need somebody who's going to look out for you. My mentor and protector at Harvard Business School was John McArthur, who was the dean. John McArthur offered me the job when I was a first-year student, and then every time somebody wanted to cut my head off he would protect me. So I could just do whatever I wanted to do.

It's a very interesting point about innovation. **If I had had to obey the rules and act like everybody else, I wouldn't have stayed because I wouldn't have been happy. McArthur was the necessary ingredient, because he ran interference for me. Or, as he put it, he provided air cover so that I could go about my business.** When he left, it became clear that it was time for me to leave as well.

I'd met lots of people who were either academically or practically engaged with the question of innovation. **If you boiled down what people knew about innovation, it had to do with two things. One was ideation. How do you generate new ideas? There's a very mature set of disciplines around ideation. The other was the product development literature, which comes right out of manufacturing and the old economy.** "Let's figure out our process and make it as efficient and smooth as possible." We'll vary the conditions here and there so we can get more performance, but we're not going to think adding innovation to organizational priorities like how we're managed or structured or how we go about developing strategy. We're going to see it in a narrow way, which is developing products and services based on our core assumptions about our business.

I'd been spending a lot of time with companies that are driven by innovation: film companies, software companies, biotech companies. I knew even in the early 1980s that there was going to be an explosion with lots of start-ups, lots of capital.

I didn't know it would be this big, but I knew that we were heading in that direction. The power balance between established companies and new companies was going to change.

I thought the ideas we had about innovation were not adequate to create best practices in what we now understand is the New Economy. When you have thousands of companies being created to pursue opportunities and an abundance of talent and capital and people pursuing non-traditional career paths, all of the conditions for innovation change. If you buy into the distinction between disruptive versus sustaining innovation, the whole new game versus existing game argument, it's even more different. Almost all the innovation practices I was familiar with from the academic literature had to do with the old economy and incremental improvement, not with game-changing, transformative kinds of innovation.

Career 5: The Idea Factory 1.0

I wanted to make a lot of changes. I moved out to San Francisco, because I had this idea of creating a company that would be themed around innovation. I said I'm going to call it The Idea Factory. I want it to be the kind of situation where when somebody walks in, I will say to them, this company is themed around innovation. This company has a mission of reinventing innovation for the New Economy.

COS: Can you say a word about how that idea took shape in your mind?

John Kao: The idea of creating The Idea Factory? Well, first of all, **I wanted to have a physical environment. I knew, in my own bones, that innovation happens in places. There's a reason why artists have studios. There's a reason why in Hollywood the work happens in protected enclaves where you have to go through a guard's gate and have a pass to get onto a studio lot.** Sound stages are often locked, and they have red lights outside that signify when they're in use. There are all kinds of ceremonial elements to make sure people know that there's a distinction between ordinary life and the creative environment where the work goes on.

Most companies that say they create knowledge don't have a place where that happens. What they have are these places called conference rooms, which are really like hotels. They're worse than hotels, they're really like the kind of hotels you rent for about two hours for furtive activity. All the knowledge is in your desk, and then you bring it to the conference room and you might have this incredible meeting where you lay things out and somebody lays other things out and there's a lot of meaning in the relationship between things tacked on the wall. But then you have to take it all down and put it away, because somebody else has to use the space.

Part of my question was, what would happen if you had a place for innovation where knowledge could live there on its own schedule and not have to be put away because of some other scheduling constraints? What would it be like to have a physical space where you could create experiences? I had been groping toward this for years.

Career 6: Producing Hollywood Films

Oh, I didn't mention that in 1989 I was involved with producing my first film, which was sex, lies & videotape. I actually was one of the financiers of the movie, which went on to win the Cannes Film Festival.

COS: Really, you did that?

John Kao: Yes, that's why I have the poster there. I thought I knew something, so then I produced Mr. Baseball. It was never even shown in Japan that widely, but it was about an American baseball player who goes to Japan to play baseball for an American team. I was the executive producer.

III. Lessons for Innovation from Hollywood

I got involved in the details of producing movies in the '80s and knew what it felt like to be on a sound stage with a director and a crew of 150 people spending \$200,000 a day trying to get certain kinds of shots,

dealing with all the uncertainties of production. In a funny kind of way, that was a great precursor to thinking about how to manage an innovation-oriented environment in an innovation-oriented business. I think a lot of the Hollywood model is really relevant for innovation. Hollywood doesn't make uniformly wonderful movies, but they have a process for making movies that works well enough to get movies made.

COS: What sort of things are you thinking of?

Principle 1: Every Movie Starts with One Person

John Kao: Well, for one thing, every movie starts with one person who is the prime mover. It could be the person who has the idea, it could be a producer who gets interested in a subject matter, it could be a director who's interested in something. But all these projects begin with a person.

Principle 2: Project-Centered Staffing

They then staff up so they have a contingency work force for that project, which is custom made for that project. And then they staff down. Everyone in this day and age is an independent contractor, so there's a huge amount of negotiation involved in putting that team together.

Principle 3: Culture of Collaboration

There are also a whole set of behavioral norms around collaboration in Hollywood, which are very functional. People make fun of Hollywood because everybody's so nice and they never say no. There's a certain functionality in the positive aspects of collaboration, because people get to bond very quickly. When you go on a set and you have a job to do, you almost immediately can meet the person who has the information that you need and then will make it very easy for you to get what you need to get done accomplished, because their job is to create lubricated relationships that work very well instantly, even though they've never met you.

It's also true in the structure of innovation, in the institutional sense. In the early 20th century you had movie studios that were the so-called "dream factories" with walls around them. There was an economic logic behind that. There were scarce elements of production. There were people who knew how to do things in a certain way, like how to set lights up in a certain way, and you wanted to make sure that people who were spies for other companies could not see how you did things.

Principle 4: Weaving of Diverse Disciplines

Value always migrates to what is scarce, and in this early stage in Hollywood what was scarce was production knowledge. Actors were cheap. Anybody who looked good could be in front of the camera because you didn't have to talk in the silent movie era.

The history of Hollywood is a fascinating history of innovation, because the organizational models and business models evolved to keep pace with different and evolving power dynamics among the different players.

It seemed to me that having elements of an experience design-oriented business that borrowed from theater, from Hollywood, and from the world of traditional design would begin to accomplish my goal. The question was, what are the new practices around innovation in the New Economy? How does innovation have to work in the New Economy?

My conclusion was that the people who had those answers were probably not strategy consultants, business school professors, or heads of product development. People outside of those traditional disciplines had the new ideas. They were probably from the fringes, from places like improv acting and scenario planning and the anthropology of customers and this kind of stuff.

The history of The Idea Factory has been the history of weaving together a number of different disciplines to try to find this new tool box.

IV. The Blind Spot

COS: What's the blind spot of innovating in the old economy?

John Kao: That's a really good question. It's not even one blind spot. It's the fact that, on the one hand, if innovation practices are focused on ideation, all you'll get is a bunch of ideas. **But ideas are easy and they don't necessarily lead to value.**

If you just see it as tweaking your product development process, you won't get outside of a narrow product orientation, and you also won't really put yourself in the best position to come up with radical, game-changing innovation.

If there are any attributes of the digital economy it is that you have to be fast. You have to do a lot of new things in a highly experimental way. You're moving toward uncertain outcomes, because you don't know how things are going to turn out. You have to make bets. You have to take a position on what you're going to do relative to your competition. Things are moving so fast that to sit still or to simply optimize processes is not an option. You have to be doing this innovation stuff continuously. You can't just do it once in a while, you have to do it all the time.

So the question then became, what are the practices that enable that kind of speed and continuity and volume of innovation activities to occur? That was what was driving the need for these new practices.

V. Three Core Elements of the Emerging New Model

COS: And so if you were to describe these new practices and the process around which they align themselves, what are the core elements of the emerging new model?

Element one: design

John Kao: I'll give you three. One is design. Design is an innovation process that is not about figuring out a specification and then filling in the picture. **Design is about being able to create interim understandings of what you want that you then work hard to go beyond. Specifically, it's a process of prototyping,** which is modeling or simulating your best current understandings precisely so you can have some kind of a shared set of understandings that will enable communication, especially among people with very different discipline bases. That will also allow you to break that prototype and iterate, prototype and iterate, until you get to some desired outcome which you could not have predicted in the beginning.

Most designers understand that when you start with a question, [such as] how to improve a toaster, the way that you get to the place where you stop and say, "I like that end point," is a process that could not be predicted. It's like jazz. You have to achieve a balance between structure and freedom to get to that end point. It's not like engineering, where you start with a specification and then, if you do all the things that specification says, you get to the end point. You do get to the end point, but you also exclude all the other branches of the tree. Design is about enabling any branch that's relevant to be traveled on to get to that end point.

The essence of design is prototyping and iteration. It's a process for getting to unpredicted outcomes. My thought there was why not apply design to strategy, why not apply design to organizational structures? Why not apply design to corporate culture? And a number of other agendas that go far beyond new toasters.

We have a head of design here who used to run design at Xerox and worked at IDEO for a number of years. He is Mr. Design. And we've got another guy who is a high-tech design guy, who led the team at IBM that designed the ThinkPad. He's a high-level design guy.

Element two: theater

The second is theater. A common complaint that companies have is, "We spent all this money on strategy, but nothing changed, nothing happened." We all know that in order for an organization to embrace innovation, people have to take risks. This means they have to be really committed to doing something new, because taking risks means that there are unpleasant outcomes, as well as pleasant ones.

You have to have a way of allowing people to shift their perspective so they see why something is important and develop the commitment to pursue that goal. So if, for instance, I hand you a memo that says we're going to have this thing called the French Revolution, and here are the five reasons, please check here if you're interested in participating, it's not an exciting experience. But if I take you to some revolutionary theater and I show you bad things that happened and I give you a lot of symbols and images and red colors, you'll get very excited and you'll want to do something dramatically different.

Theater goes back to the Greeks. The purpose of theater was to transform your moral perspective in the deep sense. Moral perspective implies dealing with several really large archetypal questions, like, What is the good life? How shall the city be governed? Issues that are transcendent — archetypal kind of questions. These questions are just as relevant to a company as they would be in the Greek polis. What is important? What is a good life? How are you going to govern?

Theater is how you transform your perspective and develop an emotional reaction to what you see that changes something profoundly. This addresses the issue of how to create new kinds of communication tools or meaning-carrying tools that allow the change process to become truly revolutionary in the best sense. By that I mean not just sharing content, but creating a context around the content which allows it to become alive in a very immediate way.

Element three: integrated systems (idea factories)

The third and final leg of our tripod here at The Idea Factory is the notion that innovation processes aren't simply about an end-to-end product development approach or some periodic ideation. They are about designing integrated organizational systems. In our language, it would be designing an idea factory for a company. An idea factory involves addressing a number of issues all the way at the top about leadership. Does leadership really champion innovation? Does leadership make sure that innovation processes and strategy processes are meaningfully integrated?

Then there's all kind of organizational design issues. A lot of companies think that if they have one venture development process and one funding mechanism, they're done. I would argue they've just started. These days, in my opinion, companies that are great at doing innovation need to do a lot of different kinds of things, including things that are redundant, messy, overlapping, and inefficient. Companies need to have an innovation portfolio, not just an innovation strategy.

We will often sit down with the senior management of a company and actually do an innovation audit. We try to understand what the current set of innovation practices are and what they need to be for the company to achieve its desired set of outcomes. One needs to think through how to build such an innovation system with everything from the tools of compensation, resource allocation, organizational structure, and communication systems. We would argue that if you get serious about innovation you're committing yourself to a long, large road, because innovation touches almost everything about a company. Almost everything about the way a company behaves and operates is a piece of the innovation agenda.

So those are three of the ideas that have motivated what it is that we do here.

Now, as far as where we're going ... I'd become very aware of the fact that we're really not a consulting company. And although we have a venture fund now, we're really not a venture capital company. We're really not an incubator, because our business is not swapping some of our services for stock. And we're not a corporate venture team or a corporate venture platform in the conventional sense.

We're not any of those conventional approaches to making new things happen, which we might call innovation. I think we're something different, something new.

VI. Career 7: The Idea Factory 2.0-Innovation Keiretsu

What we are doing now is essentially version 2.0 of our company. Version 1.0 was that big companies would come here and we would work with them and help them change. Version 2.0 is that we want to be in the business of creating assets, leveraging the intellectual capital and The Idea Factory assets that we have in order to create — whether it be new companies, new joint ventures, or new business containers — around intellectual capital so that interesting new kinds of things can happen.

We also want to try to find high-leverage opportunities to deploy our intellectual capital. For instance, we're setting up a network in Europe that is going to be deploying Idea Factories in different European countries. We're doing some interesting advisory work for the U.S. government and for some branches of international government. We think those are really great opportunities to take our intellectual capital and have it flow out and touch a lot of people's lives.

COS: So in the 1.0 version, you charge for service. What's the business model in the 2.0 version?

John Kao: Business model of 2.0 is — through friendships, alliances, business tie-ups, joint ventures, spin-outs, start-ups, or whatever the appropriate vehicle — to use our Idea Factory assets, the productive capabilities that include our people, our embedded technology, our capital, and our processes to create new, valuable companies; new, valuable processes; new, valuable joint ventures; or new corporate spin-outs that will have an asset value, an economic value as opposed to a fee-for-service economic model. It's not that we're not going to do consulting, but it's that I think we're going to expand our model to focus more on asset creation.

COS: What I hear you describing is a generative field of innovation that you are growing, is a whole ecology of entrepreneurship where various ventures evolve and then develop. If you take the three elements that you described — design, theater, and the systems approach — along with the field that you just indicated, what is it that keeps all of it together and that makes sure that it remains a living system that continues to bring forth innovation and entrepreneurial action?

John Kao: It's a really good question, again. You ask very good questions. In a way, it's kind of like a keiretsu that we're setting up here. Except it's an **innovation keiretsu**.

COS: A keiretsu?

John Kao: I think of this almost like an innovation keiretsu.

COS: Interesting.

Glue 1: Cross-ownership

John Kao: Part of the glue is that there's a certain amount of cross-ownership, although not universal. For example, I'm talking with a technology company that is in the business of creating business-to-business exchanges in market spaces.

We're talking about swapping 1 percent of our stock, because we're at about comparable valuation. When I call them to do a project for us, I want them to feel that they are obligated [because] we're a part of them, they're a part of us. I'm involved with other projects where there's linking in terms of the equity.

Glue 2: People who see the whole picture

The other part of what makes keiretsu work typically is that there are people who see the whole picture. There are some people who only see parts, the local layer, and then there are people who see the whole thing.

For me, there's an overall pattern emerging. I have a team that does Idea Factory work. I recently participated in buying a movie studio in England with some partners. So we've got that, we have The Idea Factory, we have a venture fund. My job increasingly is to weave these connections back and forth.

Glue 3: Processes

A third kind of glue is process glue, because I think that people throughout the system understand how to do certain kinds of things in certain ways. We've developed ways of doing things and tools that are relevant in different parts of the business. We have a common vocabulary and a common set of understandings around innovation. It's like there's a game board that is available to everybody within this situation.

Usually when I meet somebody and they say they work on innovation, the first thing I have to do is ask them what they mean. Here in this situation, I don't, because the people within our system share a kind of innovation culture. They understand, by and large, how the words are used, what the words mean, how to communicate that. So there's a whole set of processes and process knowledge that holds things together.

Glue 4: Projects

What holds things together are projects. If we didn't have interesting work to do, then there would be no glue. One thing we're really good at it is coming up with interesting projects.

COS: Maybe that's the main source of glue.

John Kao: It all hangs together. I think it's really important. For instance, the meeting that we're going to have later this morning: They're interested in The Idea Factory, they're interested in Ealing Studios, they're interested in our venture fund, they're interested in all of it. That project will pull together a lot of different elements.

By the same token, the fact that our team now has some capital is also glue. People have the expectation that if they come up with a good idea there's a way of getting things done, and they would rather stick around here than go somewhere else.

COS: So when you then replicate this entrepreneurial ecology for other organizations and projects, process and cross-ownership are easy to replicate. But the fourth factor is difficult to replicate: it's you, it's John Kao.

John Kao: Or people who weave things together.

COS: So how do you replicate that?

John Kao: Well, first of all, I don't think processes are a commodity yet. So embedding new kinds of processes in organizations is pretty valuable.

But who does the work of weaving these things together involves actually giving people training in how to understand what that role is. I'm doing a workshop with a very senior group from the U.S. military, which is all about how they see their responsibility in managing the knowledge of their organization. They thought it was a very soft issue until I persuaded them that it was probably the most important part of what they did.

It also involved a very different role from being the commandants because you have to be a peer and a colleague and a facilitator and an enabler and many other things that don't fit in that traditional role.

Why do people go to Harvard Business School? Because, really, it's all about drinking and going to parties and stuff. But it's also about doing these cases so that you learn, by projective identification, a whole new set of skills.

We have some ways of using cases and simulation and business games and things of that kind when the need comes up to train senior people for this role of innovation weaver, or what I would more specifically call being a producer. **In Hollywood, I produce movies. What does that mean? Well, there was an idea I liked. I knew some people that I could get excited about it. I knew where to go to get the money. So I was a producer.** Without me, these movies wouldn't have happened. Without me, that biotech company would not have happened.

One day my mother asked me a question. She said, You know, I've watched you work, and you act like you're not in a hurry and you talk on the phone a lot and you kind of sit at your desk and then you go have lunch with somebody and all these things happen. I don't understand what you do that goes from that (sitting and talking) to the actual creation of these companies and the value and stuff.

I think that's because people associate value creation with muscle work, very tangible kinds of work. This is very intangible and it involves time. Sometimes, actually doing it in an inefficient way is much preferable to doing it in an efficient way because ideas need time to germinate, and interactions need time to become richer and more relevant. Talking to people or gathering ideas or the incubation process cannot be scheduled in a conventional way.

That is why I think the architecture of innovation is going to change dramatically over the next five to ten years. There are quite a few companies that are interested in having some kind of a corporate think space or quiet space or slow space where new things can happen. Nobody's figured out the architectural principles. A lot of companies are fiddling around with that. But five to ten years from now, it'll be a more commonly understood need and people will have more ways of practicing innovation that are, if not standardized, at least recognized: we need that. We need our Idea Factory.

VII. Catching the Entrepreneurial Process in Flight

COS: When you enter the entrepreneurial process, what is it that you do first?

John Kao: The first thing is to define what the opportunity is, which is the same as saying, to become captivated by an idea or by a possibility. Any design effort starts with a problem definition. The better the problem definition is, the more likely you'll have an interesting outcome.

The more you address this issue of what is the problem definition, the more you see new things in it. **Everything starts because somebody falls in love with an idea or an opportunity.** Otherwise, nothing happens. That's really the first thing, almost by definition. **You need the initial spark.**

COS: What are the practices that you use, maybe personal practices that increase the probability of these sparks emerging?

John Kao: Well, personally, I often do things that I don't know how to do. That is one way of opening yourself up. For instance, when I was teaching at Harvard, I would often, in the few weeks prior to starting my course for the year, take a course in something I didn't know anything about. When I was teaching, I was walking into the room as a big professor and everybody was very respectful. It actually was very helpful to exchange the context and step into the student world and experience that first.

This is a very innovation- and creativity-oriented space, but I also have a studio two blocks from here. It is just a loft that has almost nothing in it except for a stereo and some books and an exercise bike. It doesn't even have a telephone. I go there when I want to be totally quiet and think about things. This week I'll probably spend two half-days there, just mulling about stuff.

What else? I spend a lot of time with different kinds of people, which is very important. I like to collect relationships with people whose talents I really respect.

VIII. Jamming

Ikujiro Nonaka: How does all of that relate to the process of jamming?

John Kao: Yeah, I think that jamming for me is a very important concept. It's an important set of practices because it embodies almost everything that people are groping for when they try to figure out how to be more innovative.

I like the metaphor because people actually study how to play jazz. They don't just wish to play jazz, they go to school, they practice, they have exercises to do. There is definitely a knowledge-mastery curve associated with it. It's the perfect way to balance a lot of the paradoxes of innovation, because you always have to start from somewhere, but you have to go somewhere new that's valuable. You always have to have knowledge, but you have to find ways of being naïve — in a good sense — so you're open to new possibilities. You always have some kind of knowledge and legacy and embedded whatever, but you have to have white space. Beginner's mind. So finding a way to navigate through those paradoxes is what jamming is about.

Ikujiro Nonaka: How do you develop that capacity?

John Kao: The way you learn jazz is you listen to a lot of jazz. There's this tradition in jazz of copying the improvisation of other people and studying it. You listen to and improvise solo, but then you copy it down, because if you can hear it and write it down, then you know it.

There are a lot of exercises and drills that you do. Then there's a lot of putting yourself in the situation of performing, to gain the experience of collaboration with people in a real live situation.

Then there's cultivating a certain mentality where the music always sounds better when you don't have a lot of preconceptions about it. If I'm thinking a lot about wanting to play well, because I want to sound good, or because I want to impress somebody, the music will sound very different than if I'm just there to serve the music. That's when I'm there to get back to a beginner's mind, if I don't have a lot of preconceived ideas.

Finding ways of clearing the mind is really important in jamming. Jazz musicians understand that you need a special environment to try new things out. They also understand that you have to believe that you can do something great, because you can't prove it in advance. That, in a simple way, is the whole issue of creating a culture of innovation: It allows people to be **brave**. It allows them to step forward and try new things themselves. Companies are not very good at giving their people courage, or the belief that something extraordinary can happen.

The whole corporate culture agenda around innovation boils down to: How do you create a brand identity for innovation that allows people to be brave and step forward and do new things?

IX. Holding Spaces

COS: We talked about the initial stage of the entrepreneurial creative process — opening the mind and allowing the sparks to emerge and all of that. I wonder whether you could say a few words about what would be the next. What are the practices and holding spaces that you would use in order to nudge it on?

John Kao: Ideas are easy, they're just the starting point. Once you have an idea, designers understand that the goal is to immediately translate that idea into some tangible form, like prototypes, so that you can begin the real work of innovation.

Having some kind of prototyping process within a certain kind of innovation-oriented environment that allows the prototype to be done on its own terms, on its own schedule, would be at least a next place.

I see innovation happening in a lot of different ways in companies in the future. Sometimes an idea pops up out of a strategy meeting. Sometimes it'll be an accident that occurs in a prototyping environment. Sometimes something happens because the customer is observed by somebody in the company and a

new idea pops out. Or maybe somebody shows up with a business plan that's recognized as being very valuable.

In a funny kind of way, the innovation environments that I'm familiar with that work well are ones that allow an idea to move around in that highly unpredictable way. Then form follows function, function does not follow form.

COS: What are other holding spaces that you consider important?

John Kao: I think there needs to be a "holding space" at the senior management level. There needs to be some kind of shared understanding and shared space between those people and the people who might be doing a particular project. It's really more agenda-oriented. Where's the knowledge about the marketplace and customers held? Where's the knowledge about technology held? Where's the knowledge about the technology landscape held? There are a number of different agendas.

It seems to me that you need to have a sense of all these different elements in the innovation mix. For a lot of companies it may be as simple as having one space that can be used in a lot of different ways and trying it and learning from that and then progressing to a next step.

What are the enabling conditions for good thinking in that kind of environment? Well, we don't know. The best thing is to have a room that can function in a lot of different ways, that can be flexible depending on what's needed and then go from there.

X. Reflection: After-Interview Lunch Conversation (I. Nonaka and C.O. Scharmer)

COS: Jiro, what struck you as the most important aspect of the conversation we just had with John Kao?

Nonaka: We invited him to Tokyo to make a speech, but it was mainly on jamming, you see. Today, there was more emphasis on place. From that viewpoint, I found his experience with making movies in Hollywood most interesting. That's his concept of theater behind it. So more or less physical theater, where the knowledge comes in and flows out, so the concept of the theater experience and jamming.

COS: In fact, what struck me as really interesting is how his journey embodies all these seven different careers. I found how he combines all of that in his own person really interesting. Also for example, how he first studied medicine and then he got to know this one guy who had this one great idea and then later he turned that into a company. So each stage has the seeds for the next stage. Working with that many contexts allows him to be very creative.

Nonaka: I would really like to know how he proceeds when he invites people to the Factory.

COS: Yes. Another thing that struck me during that whole conversation was something that was not taped. He started off by showing us the place. He was describing how the spatial set-up of the Idea Factory is designed to create experience. So I asked him, you are really not an Idea Factory, but rather an Experience Factory, right? And he sort of said, yeah, that's true. So I thought that was interesting. How the whole focus is on creating experiences.

Nonaka: Yes. Well, from that viewpoint, it might be interesting to say, it's really organizing or utilizing Nishida's process to make it a business.

COS: Say more.

Nonaka: Because recently, I just read *The Experience Economy*. Experience means here, right now. It's living experience. How to convert this living experience or, in a sense, the basics for the emotion. The basics for enjoyment. Basics for excitement. How to convert this concept into marketing that they called Experience Economy.

So, in a sense, John is really, what you beautifully pointed out, an experience laboratory. It means that here and now experience, it's a fresh idea, the most living idea; try to make it convert to the prototype, the concept, but eventually make a company.

So in a sense, it's not New Economy, but Experience Economy. He may be consciously doing that. I don't know.

COS: That's really interesting, I like that. So it's the Experience Economy and the other term you used is experience laboratory, right? That's the piece that he tries to develop within that context. I like that.

Nonaka: Because he's trying to build up the other side of the digital economy.

COS: The other side of the digital economy. Now, Jiro, you tell me what we could learn from Nishida on how to do it. Because Nishida started off with pure experience, but then it continued, so could you say a word on that?

Nonaka: Yeah. The pure experience is here-and-now experience. And also the place, basho. So it's interesting. When I met John in Tokyo, he said he read our article on ba.

COS: You know, Jiro, three weeks ago we met with Ohashi sensei in Kyoto. We asked him, "What are the different concepts of ba that Nishida has?" And he had three answers. He had a succession of three different qualities of places. The first one was space, physical space. The second one was mental space. And then the third one was connected to the transcendence of the self.

Nonaka: Yes, the self-transcending kind of awareness.

COS: So that would be interesting to connect.

Nonaka: Yes. You should ask him that question when you will see him next week.

Conversation II with John Kao, The Idea Factory, San Francisco, April 18, 2000

COS: Three weeks ago Jiro and I met with Professor Ohashi in Kyoto. We asked him, "What are the different concepts of place that Nishida has?" And he had three answers. He had a succession of three different qualities of places. The first one was space, physical space. The second one was mental space. And then the third one was connected to the transcendence of the self. Could you elaborate on how your work relates to these three levels?

XI. The Power of Place

John Kao: In some ways, we have an intuitive or tacit understanding of Nishida's ideas about the three qualities of space here at The Idea Factory.

Level I: The Physical Place

We believe that physical place is really important, and we also believe that our physical place should be able to change its purpose at a moment's notice, depending upon staging or perception or intention.

One minute the space can be an office and the next minute it can be a design environment and the next minute it can be a theater and the next minute it can be a production-oriented environment. Some of the staging elements have to do with the fact that we can push a button and close our blackout curtains and push another button and turn on theater lights. Even at 9 o'clock on a sunny morning, we can have a theatrical kind of environment inside.

Level II: Our Story (Mental Place)

That leads to the second point: in the theater, you quickly forget about the literal facts of the physical place if the experience is successful. You forget that you're sitting in a chair that has purple cushions, that the theater has a certain number of rows and a certain kind of architecture, because there's a suspension of disbelief that changes the mental landscape. You are drawn into action that is occurring on the stage among actors that you have a projective identification with, and that leads to a flow state, where you lose track of physical time and space as you are drawn into a story.

That's part of what we mean when we emphasize to companies that they need to figure out their story. There's a big difference between what people physically do in a company and the kind of mental space they're in, which relates to whether they're feeling like they're a part of the corporate story. There's also an analogous kind of projective identification into the heart of that story, so that on top of the literal landscape of day-to-day tasks, there's another landscape. It has a different topology, and the relationships between the elements are about the connection between what I do and what the organization does. In other words, how does my unique archetypal hero's journey relate to the kind of unique archetypal journey of the company?

Bad theater or bad movies quickly bring you back to the literal world. If you're bored, or an actor blows a line, or a light falls from the ceiling while the action is going on, that mental space is destroyed and you return to the literal space; it's like waking up from a dream in a way.

Level III: Moral Purpose (Spiritual Place)

But if the story works, you progress to the third level, which is yet another landscape. The great Zen philosophers and practitioners talk about how at the moment of enlightenment, space and time have a different meaning and there's a great mental clarity. That burst of insight or satori — which I think people are seeing increasingly not as one isolated event but as a quality of experience sustained in one's spiritual practice — has a different landscape again. It's yet another shape imposed on the physical and the mental.

In theater, if the dramatization works right and the story is good and the stagecraft is good, you get to the point of engaging in what I would call the moral dimension of the story.

The third level concerns whether the storytelling serves some moral purpose. Back to the ancient Greeks, the big questions are: Who am I? What is a good life? How should the polis be governed? These are the kind of eternal archetypal questions that occupy anybody who is in a leadership position in an organization.

The goal of theater is not entertainment, per se. Although it is entertaining to step outside yourself, forget about your cares, be transported somewhere else, the goal of theater is to have your moral perspective profoundly changed so that you wind up leading a better life. This goes back to Aristotle. The whole notion of catharsis in theater is a psychological transformation. You could even say it's a spiritual transformation. **By going to this physical space called a theater that has this mental space called the story, you enter the moral pace of catharsis and transformation.**

Most companies design their architectures for physical efficiency. There is not much of a sense of how the physical place enables the story. So you get standard corporate architecture where you have a conference room, private offices, some kind of lobby with a piece of boring art in it, and that is considered to be the end point.

In contrast, what we did here at The Idea Factory was to tell a story about who we were. We started up and we didn't know what we were going to do and we found this space and we grew into it and we figured out a lot of things. I tell the story of sitting here on one end of the room and the only other person working here was sitting at the other end and we had two \$29 canvas deck chairs and that was it, that was all we had. And now here we are. It's part of our scripture now, it's part of who we are and where we came from. We tell that to people to get them to think about what it would be like if they started something by going all the way back to the beginning and then drawing things from a white space.

We are playing with the notion of place as something that leverages a story about who we are as a company. We also think that this notion of the transcendence of self — having that ability to be so aware and clear that complicated things become simple and obvious — is something that all companies need and no companies have. They think if they go off and do a corporate retreat and play golf or go to a nice place with nature that somehow they will get this clarity. Usually, it doesn't quite work.

They'll say, oh, it was a really good meeting and we got to talk informally. But there won't be this sense that, well, we're sitting in this zendo and practicing this meditation and then Ah! we have enlightenment. Enlightenment is where there's a really big, new set of ways of looking at the world that creates a lot of emotional energy and desire to change your life further. Many people come out of meditation or the theater and want to change the way they relate to people or how they spend their time, what their moral compass is.

Businesses have been operating under a fiction that they're industrial machines where efficiency is really important and therefore the architecture and the processes are designed for efficiency. They're managed in terms of efficiency and there's a kind of literalness to the process. If you're going to create something new, because something new by definition is unknown, uncertain, you must organize around a story. You can't say with certainty what something new is going to look like a year, two years, two months, two days in the future. If I want you to work with me on something, I have to tell you a story. Then you have to decide if you like the story. Managing that shared mental space becomes far more important, and it does not obey the laws of efficiency.

XII. Economies of Discovery

I make a distinction between economies of scale and what I call "economies of discovery." Economies of discovery are about how you organize, spend, and manage resources so that you get discovery — which is inefficient by the industrial model of economics. On the surface, from a literal perspective, the economics of discovery are wasteful. You don't get to known goals quickly. There is redundancy. You do a lot of experiments and most of them fail. And you're hiring people to do things that are non-standardized, which is by definition inefficient.

This flies in the face of the kind of management style that has been rewarded up until now. The old style rewards people who know how to set agendas and control and manage from the point of view of getting the maximum output from a given set of resources. The opposite viewpoint is: here are my resources and this is the maximum amount of innovation, the maximum amount of creation, the maximum number of different ways of perceiving things that I get out, which enable me to reinvent my organization so that I can continue to be successful.

It's about creating heroes...

It's very interesting, even in the military, there's a big debate going on now about what is the nature of command and control. In the old days, command and control was literally that. How do you give orders and ensure that they are obeyed and that you have control mechanisms to push things back on course when they get off course? Some of the newer models of command and control, which I've been doing a lot of thinking about recently, are more about striking a balance between the extremes of rigid control on the one hand versus letting people do whatever they want on the other.

Not being a hero yourself.

It's really the jamming concept. At one end, you follow sheet music without deviation and the other end is total, random music, but somewhere in the middle is something beautiful, which is a resolution of the paradox. It's a both-and, where the essence of good command is about creating the conditions within which the story can emerge without sacrificing discipline — the ability of example to control available resources — at the same time. The way you influence other people to play into this is not about telling them what to do; it's about leading from behind. It's about creating heroes, not being a hero yourself.

At the level of architecture, I relate to this three-tier model. A lot of literal, physical things happen in the course of an Idea Factory workshop when we work with a company, but the intention is that there will be a shared mental space. A shared mental space is also a function of creating storytelling tools which could be prototypes. In the theater, you have artifacts and props and costumes; you have ways of suggesting the story.

Here, we have prototyping processes around products, services, and business models. Those create a shared mental space as well. The goal is to get to that Ah! Okay, I see that we have been doing this, but we need to do this. Or, what is important is this. In some respects, the goal is a kind of infinite game goal of finding what is new and what is valuable on a continuous-flow basis.

COS: So did you say the goal is getting to this level 3 kind of place?

John Kao: Well, I don't want to pat ourselves on the back too much. People usually come in with a specific question, and we may have to work with them to tease out the real question. But I think the success of what we do here is based on being able to get to the second level, if not the third. It's not like you can make that a routine, i.e., in 48 hours you will have this transcendent experience. Sometimes it takes a while for the experience to sink in. With some individuals it may not sink in at all. The baseline is for them to say, I learned a lot. We came up with some new ideas and we have a new framework and I was able to interact with people in a different kind of way. I would say 98 percent of people who come here feel that way. Then some people get that kind of clarity that leads to a very different way of wanting to go about their business. That's not as predictable, I think.

XIII. Methods and Tools

COS: What are some of the methods and tools you use to move across the three levels of place we discussed above?

John Kao: We often start off sessions with the curtains closed and the theater lights on, because we want people to come into a very different place from business-as-usual. Then we have spotlights that have words on them — "Welcome to The Idea Factory" — and we may have music playing or some unusual kind of breakfast food. We want them quickly to get into the mood that there's a drama about to happen, there's anticipation.

An hour later, we might open the curtains and let all the light in because we're saying, now it's time to shift gears a bit. Part of that timing is not based on a manual; it's based on instincts, about, gee, the energy seems a little low, or we don't want to feel like we're in a nightclub all day, so let's let some light in.

One of the big things we do is to use visual tools to try to move thinking away from verbal, analytical thinking alone to more analogy-based, inductive, and visual kinds of thinking. We may do an exercise in the beginning that captures some of that flavor. We invented a tool that uses photos you can attach to a cube. It's like a visual Rorschach test of social issues and elements that make up our world. The scripting of this exercise depends on the client, but we might say something like, introduce yourself and tell us what you're most concerned about, and select three or four images that tell that story.

They go around the room and everybody gets two or three minutes. It's amazing what comes up. We first developed this tool for Royal Dutch/Shell, because they wanted a way for 500 senior managers to tell a story about what was on their mind in an hour.

Another storytelling device is "sand tray." Sand tray is a play-therapy technique for children that originated from a novel H. G. Wells wrote in the early 20th century about creating worlds using little play objects in a tray of sand. It's partly based on the fact that children cannot tell you a lot of theoretical stuff about what's bothering them or what's important to their world. If you ask them to start playing with a lot of little objects in a sand tray, then you get this evil monster and you get walls that are built here and you get trees over there, and all of a sudden he's built a very interesting, deep story of what that person's world is like.

We might say to the person from the company, show us a world in which your deepest hope has been realized, and get two or three different teams from a company to do it in parallel. Then they'll have to tell each other what the story is and compare. We will interpret based on the process that was used.

These are easy things to do. Just like children, you don't need skills to play. If you give them the right tools to tell it, the story they have inside them will just come out.

They might be good things for opening up, for the beginning part. But, again, it's not like we've created a science around this. We often change what we do. The people who are running the workshop will go off into a corner and say, this is working or it's not working or something else needs to happen and we'll change it. We might send people out. We might say, okay, we need to go up on the roof. We have this incredible roof where you can see all of San Francisco and the air is very fresh. Sometimes we send people out on expeditions with assignments, like little treasure hunts. We may plan these things, but we also have them in our tool box to be used depending on the situation.

A certain amount depends on the intuition of the person who's doing the facilitation. One of the most important aspects of what we do is about the facilitation. It's about the people who are involved in actually creating the experience for the audience, for the client.

XIV. Gift Economy

COS: You mentioned the hero's journey. So what role does that play in your work?

John Kao: I wouldn't want to oversell that. We've experimented a little bit with using archetypal imagery as a projective test of how people could combine different story elements to tell the story of where they are or where they want to be. The other way of answering your question is that the kind of people we work with — whether they're the change agents within large companies or whether they're entrepreneurs who are coming in with an idea that we want to help them build — are heroes. I mean, to me, personally. **There's something very moving about a person who's decided to take more risk or to change their lives to try to get something done that they really believe in. Most organizations are not that good about giving those people the extra courage or the resources to do what they do.** I love trying to help out people who are stepping forward in that way, to be a kind of catalyst or source of some advice.

It's part of the culture of the organization here at The Idea Factory. We often do things for people that are not about getting paid because we think the project is important. For instance, I'm doing a day a month for the U.S. Navy right now, for free. I could be charging a ton of money. But I'm doing it for free because I really believe in what they're doing. They're like, you don't want to be paid? It's hard for them to pay us anyway, and I don't want to be a government contractor.

What's even more important is that I want to come from the place of this is a gift, this is not a sale

COS: How does that change the work? If you are coming from the place of giving as a gift rather than just being a consultant?

John Kao: I think it changes it a lot. There's a downside to offering gifts, which is that people might not see the value of a gift. Psychotherapists always charge, simply to get people to pay attention to the value of what's being offered.

But there's a big upside as well. I've noticed, for example, in this work with the Navy, that because it's a gift, I've been able to meet a number of key people very quickly. There's something about assuming the position of offering a gift that gives you a certain amount of impact. People say, oh, this is a gift, so we better take this seriously. Or they say, we really respect that you're not trying to sell us something and yet we know that what you have is really valuable, so come on in and you should talk to that guy and this guy. It's different from, oh, this person is charging us and he's another kind of blood-sucking consultant. The U.S. government is certainly used to a lot of that. It's kind of a cliché in a way.

It's a better positioning. On the entrepreneurial side, there are a ton of situations where people come in to talk about their ideas and we don't charge them because we're looking for the place where we might engage, where we might create value together.

COS: So it's a gift economy, rather than...

John Kao: Sometimes it's a gift economy. The notion of networks, which I alluded to, is in my own experience very much a part of this story. One of the reasons why I decided to build The Idea Factory in California rather than in New York or Boston was I found that in those other places people were very concerned about how much they were going to get paid or how much equity they were going to get. Here in California, in San Francisco, the initial questions were about giving. They were more along the lines of, have you talked to this person? Do you know about that thing? Are you aware of what this company is doing? I want to bring this guy by. This guy I think has money. This sounds great. They were giving something.

So the metaphor that I use a lot in describing the process of getting us started is a barn-raising. In the old pioneer communities in America, if you were the new person in the town, everybody would come and give you a day of their time. If you get 50 people to give you a day, you've built your barn. Then you, in turn, show up for the next person. You create a network of obligations.

XV. Creating A New Discipline

John Kao: My whole career was really influenced by reading this science-fiction book when I was ten years old. Did I ever tell you this story?

COS: No.

John Kao: It's a good story. When I was 10, I found a science-fiction book in our house, which had been left there by an uncle. It was a story of an interstellar expedition, kind of like Charles Darwin's voyage of the Beagle, except it was on a big spaceship. It was kind of like Star Trek. I think it might have been the basis for Star Trek.

Anyway, one guy on the ship had a new discipline, called nexialism. Nexialism was a discipline that crossed a lot of different traditional disciplines, but it was brand new. The ship, predictably, has all kinds of problems and people can't cooperate, the chemists and the physicists and the military faction on the ship all argue with each other and they're ineffective. This guy basically uses a little bit of psychology and a little bit of management and a little bit of science and a little bit of this, that, and the other thing and turns the whole situation around, solves all these problems, and saves the ship.

I was 10, and I thought, wow, that's really great. I want to do that when I grow up. Then I found out that it was not a discipline that existed. This is true. In some respects, I think I've been trying to invent this discipline for myself from that point on.

So if you think about that and then you look at all the different things I'm doing, whether it's the jamming, the music, the psychology, the start-ups, or all the way over to being a consultant to the Navy, it's all the same thing about trying to figure out how to take lots of different knowledge and apply it in a way that makes a big difference. Maybe the underlying question is how to create that discipline. Maybe I'm the first nexialist.

COS: Thank you very much.

XVI. Bio

John Kao was born in 1950 to Chinese immigrant parents. An accomplished jazz pianist, he spent the summer of 1969 playing keyboards for Frank Zappa. During the 1970s he earned his bachelor's degree from Yale in philosophy, followed by an M.D. and a three-year residency in psychiatry. In 1982 he received a business degree from Harvard and, at age 31, became an assistant professor. He taught creativity courses at Harvard Business School for 13 years.

In 1987 he started Bio Surface Technology (now Genzyme Tissue Repair), a company that grows new skin for burn victims. In 1989 he financed and helped produce the indie film "Sex, Lies & Videotape," which went on to win the Palme d'Or at Cannes. In 1992 he founded K.O. Technology (now Variagenics), which is developing a means of attacking cancer cells without harming healthy ones. In 1996 he wrote Jamming, a bestselling book on creativity. In 1997, Kao founded The Idea Factory in San Francisco (which has expanded to Europe and Asia). The Idea Factory's clients include Nissan, PricewaterhouseCoopers, Royal Dutch/Shell Group, and United Parcel Service. In 1999 Kao bought London's Ealing Studios with plans to turn it into a new digital studio. Kao's evolving vision is to build an innovation keiretsu, which he describes in the interview.