

Innovation and Silicon Valley



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A year and a half has passed since I moved to Silicon Valley. DOCOMO Innovations, Inc., which was formerly known as the DoCoMo Communications Laboratories USA, was changed into its current name in 2011. This was a change made to keep up with the times. For the past one and a half years I personally witnessed the drastic changes and the constant competition going on in Silicon Valley. Taking advantage of its Silicon Valley location, DOCOMO Innovations carries out activities in different areas through four key teams. Our Mobile Network Technology Group conducts research on mobile communication technologies, our Business Development and Investment Group provides business development support and strategic investment for US startup companies to enter the Japanese market, our Network Services Innovation Group studies technologies related to cloud computing and data mining*¹, and our Android (Advanced) Product Innovation Group provides support in development planning for devices in collaboration with partners working on Android™*² products. These areas, which cover a wider scope than our operations when we were a purely research laboratory, are all leading areas in Silicon Valley.

Innovation refers to making new combinations from existing technologies, and unlike invention, enables creating products and services that are soon ready to be released into the market and generate competition. As such, technology development that is

coupled to business has become the main approach, and speed has become an essential requirement for research and development activities. Aspiring to follow the footsteps of current leading players in the market—from the well-established giants like HP, Intel, and Apple, to up-and-coming contenders like Google, Yahoo!, Facebook, and Twitter—many startups are being born. These new startups are not only companies that have superior technologies, but many are also characterized by vibrant new ideas and are generating new values in unconventional ways. These developments are making a significant impact to the business environment and to society as a whole. The area called “sharing economy,” for example, where companies like Uber and Airbnb top the list, refers to an ecosystem*³ for sharing personally owned assets to create new business opportunities. Breaking down conventional industrial structures, this kind of system pursues convenience and outstanding service quality through the incorporation of mobile technologies, generating innovative and popular services. Uber, which has revolutionized the taxi industry, recently received a staggering valuation of 17 billion dollars. Indeed, these new initiatives are widening the possibilities for new business.

There are 39 startup U.S. companies established in the ten years from 2003 to 2013 that are valued at more than one billion dollars. Looking closer at these 39 companies, we see that the average age of their CEOs is 36 and are mostly university graduates of engineering degrees. In Japan, students are classified either as science or humanities majors, but here that line does not exist anymore. The boundary between CEO and CTO is blurring, and engineers are now required to have business sense. A very distinctive characteristic of the times is the speed by which new products and services (applications) are released into the market using money gathered by investors. Of course, there are many new products and services that have gone unnoticed, but this environment where members of the young generation are using their ingenuity to tackle new challenges is causing a wide range of innovations to come about. I therefore urge you to become an engineer who is capable of bringing about innovation. For our part at DOCOMO Innovations, we will continue to conduct activities and provide support from the U.S. in order for the DOCOMO Group to realize products and services that our customers will truly enjoy.

*¹ **Data mining:** Technology for discovering parameter correlations, patterns, and other hidden knowledge through the comprehensive application of statistics, pattern recognition, artificial intelligence, and other methods to the analysis of a large volume of data.

*² **Android™:** A registered trademark of Google, Inc.

*³ **Ecosystem:** A symbiotic mechanism in which multiple businesses in a field partner in their business activities to make use of each other's technologies and assets, and include consumers or whole societies to create a series of flows from research and development through to sales, advertising and consumption.