

# An interview with Tatsuya Tanaka, president of Fujitsu, and Shingo Kagawa, CEO, head of digital services business, and CTO

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## **Abstract:**

The French leg of the Fujitsu World tour 2017 “Human-centric innovation, digital co-creation” was in Paris on 29 June. This event was oriented toward artificial intelligence following Fujitsu’s recent announcement of an agreement on cooperation with the French Institute for Research in Computer Science and Automation (INRIA) and of an investment of more than €50 billion in the digital transition in France. The agreement calls for partnerships with start-ups and for opening a “center of excellence” on artificial intelligence (Drahi X-Novation Center, École Polytechnique).

— **Digital Issues [DI]:** Fujitsu announced in November 2015 that its techniques using artificial intelligence would be incorporated in the platform Zinrai. What is happening with Zinrai? Could you cite examples of successes or, on the contrary, of the difficulties encountered?<sup>1</sup>

— **Tatsuya Tanaka [T.T.]:** We’ve already acquired more than thirty years of experience in artificial intelligence. We have seen “booms”, related to developments in certain sectors, such as manufacturing and financial services. Over the years, we’ve filed more than a hundred patents, and acquired experience in the automation processes in order to respond to customer needs. Zinrai was launched as an integrated service platform. In September 2016, we identified 300 projects responding to our customers’ needs. We are constantly improving the system by taking into account new demands, and are now developing 500 projects for call centers, maintenance, manufacturing (*monozukuri*), the integrated management of knowledge... Artificial intelligence is everywhere. In April, we announced the rollout of Zinrai for all our service offers. We are co-creating Zinrai with our customers. Of course, the first challenge is to form a sufficiently big database for using AI.

— **Shingo Kagawa [S.K.]:** Without the data, we can’t do anything. When talking about data, we think of figures; but we can turn data into images, diagrams, etc. We can learn so much and, we might say, “feed” AI and benefit from it. Fujitsu is on the cutting edge in this domain. Here are two emblems of success.

One of our clients had recurrent manufacturing defects on a production line. By combining the IoT [Internet of things] and AI, we detected the problems, and steer proactively and preventively from a single center all production units with the same type of equipment.

Another important example is a psychiatric hospital in Spain. We were able to use AI’s awesome capacity for analysis in order to measure the seriousness of cases and categorize pathologies before appointments. This helps prevent illnesses and accelerate diagnoses by doctors so that suitable measures are taken rapidly. It’s a major success, since it is hard with this sort of pathology to make a diagnosis and the right decisions.

— **DI:** When Zinrai was launched, you announced a sales goal of ¥50 billion (€390 million) for the Zinrai ecosystem in 2018. Are you reaching this goal?

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<sup>1</sup> This article has been translated from French by Noal Mellott (Omaha Beach, France).

— **T.T.:** There's a literal boom in AI, and I think we have entered an era when it'll be omnipresent in all sectors. In any case, we want to integrate it in all our products in order to offer ever more complete services. Our AI business unit is to play a key role. We count on sales of ¥320 billion (€2.5 billion) by 2020. This is the sales figure for all services that incorporate some AI.

— **DI:** Zinrai claims to be "human centric AI". What does this mean?

— **T.T.:** Our philosophy is fundamentally that AI is not a confrontation with human beings but, on the contrary, absolutely has to be centered on humans. Automation, for example, has the objective of enabling us to do much more than what people alone can do. That's the reason we call it "human-centric AI", artificial intelligence centered on humans.

— **DI:** What does *zinrai* mean in Japanese? Why was this word chosen as a name? Can it be understood with the characters *jin* (person) and *rai* (to come, the future), which would evoke the idea of "people of the future" or the "future of humanity"?

— **T.T.:** In Japanese, *zinrai* stems from *shippu jinrai*, which refers to a very strong wind or the speed of thunder... because artificial intelligence responds to demands as fast as lightning. But your play on words using the characters is interesting.

— **DI:** In March 2017, Fujitsu announced it was setting up a "center of excellence" devoted to AI in École Polytechnique and a partnership with the French Institute for Research in Computer Science and Automation (INRIA). What place does France have in your development strategy?

— **T.T.:** We expect a lot from this cooperation. For one thing, we've identified a large potential for working with several French firms, and that's one reason for reinforcing our presence in France. For another, France has educated so many outstanding mathematicians, scientists and professors. By combining mathematics with computer science, we expect outstanding results. And then, we want to work with France because of its very long history as a culture, civilization, and its very strong philosophical and ethical values. We're living in a time of change, and the uses of AI might get out of hand. This is the reason for our slogan "human-centric AI", for centering the development of AI on humans. In this respect, input from France is of interest. We're hoping for a deeper partnership in the coming years. Whether with regard to data-processing or the transformation of work, automation is going to have an ever larger place in our societies. We vest hope in our projects with the French.

— **DI:** What message would you like to pass to the French to improve this cooperation?

— **S.K.:** President Tanaka just visited Vivatech, a trade show where we met young, dynamic French companies. We notice that the French government wants to back these young companies. Via Business France, we have established contacts. There are so many French people active in the field of information and communications technology. The big firms own big data, we are offering them to apply our techniques for analyzing and processing these data. We have a cooperation agreement with INRIA, which incarnates excellence in mathematics. When you say the Internet of things, there are the data but also (and above all) the analytics. We're very interested in the topological analysis of data developed by INRIA. We would eventually like to form an ecosystem of connected services that brings into relation, around Fujitsu, our customers, partner firms, academic circles, researchers and experts in line with government plans.

— **DI:** There are mixed feelings about artificial intelligence, which is perceived as both a promise and a threat. How do the Japanese view AI?

— **T.T.:** The Japanese are an industrious people. Work is a value. Even when you don't earn much money, you're aware of contributing to society's development. So, of course, people are anxious about the coming of AI and robots. They are, in a way, afraid of being replaced. This anxiety is perceptible. But you know, in Japan, we have an enormous number of *mangas* with robots as heros, such as *Tetsujin 28go* [a comic strip, often republished and translated, that has served for a television series, a video game and a film (in 2005)]. There's the intuition that technology can bring happiness, help human beings — a positive image of technology and robotics. The Japanese appreciate the positive aspects of technology, and if a firm proves that it is ethically responsible, it can orient in the right direction the new technology.