To Deal with Invisible Risks

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We are now in the midst of a global pandemic. To date, over a million lives have been claimed by the deadly disease that we now know as COVID-19. I think we have all wondered, "Why is this happening?" "Could we have prevented it?" And the answer is, perhaps, "Yes." If we had a proper contingency plan, a project on a global scale, we may have been able to prevent this. We all know that projects contain risks. Many of these risks are invisible at first, only to emerge when we consider long term implications of the project. In this presentation, I'm going to suggest three ways to deal with such "invisible risks" inherent in all projects.

The first way to reveal "invisible risks" is to use computers to simulate the future. When humans analyze data, their emotions may affect their predictions of the future. Projects based on such flawed predictions may produce unexpected (and perhaps fatal) consequences. On the other hand, predictions made by computers are not affected by emotions. And their predictions are based on an enormous amount of data. For these reasons, research centers like CCSR use computers to make predictions of possible climate change, shown here. The results of the simulation should be clear, even to wishful thinkers who want to deny global warming. Global warming is real, and we need to follow a plan to fight it.

The second way to reveal invisible risks is to look at failed projects in the past. Experience from failed projects informs us of potential "invisible risks". Lessons learned from the past can show us what path to choose to achieve the results we want. Many of us still remember the nuclear disaster at Fukushima in 2011. Following this disaster, Germany permanently shut down the operation of eight nuclear power plants. They now plan to make a transition to renewable energy by 2022.

The third way is to ask an independent third-party for opinions on projects. People tend to make poor decisions when they are biased. The voice of an un-biased and knowledgeable third-party can prevent us from making the wrong choice. One example is the typhoon alert in Japan. In an emergency, like when a typhoon is headed our way, we tend to be biased. We underestimate the damage it may cause because we lack the knowledge about typhoons. In such situations, we must plan to minimize the damage of coming disasters. In other words, we have to make an unflawed project to ensure our safety. The alerts by typhoon experts make us aware of invisible risks in such projects. They're often considered to be exaggerated, but they save people's lives, at least.

Let me conclude my presentation. I have talked about three ways to deal with invisible risks. But they all have one thing in common. That is to prevent our emotions from affecting our projects. Predictions made by computers are not affected by emotions. Results of projects in the past are also not affected by emotions. Asking for the opinions of a third-party prevents our analyses from becoming biased. Armed with computer simulations, lessons from the past, and un-biased opinions, we can develop a plan that will lead us to the future that we want. If we want to end this COVID-19 pandemic, we

need to develop a plan, a global project, informed by computer simulations, lessons from the past, and un-biased opinions of knowledgeable scientists. We must not be swayed by wishful thinking. Thank you for your attention.