What It Means to "Change the World"

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Dear students at Handa High School,

It was my great honor and pleasure to have joined the entrepreneurship seminar remotely and talked to you all, the current students at my alma mater, back in September. I would like to express my sincere gratitude for Mr. Iwahashi, Mr. Sugie and Mr. Suyama, my peer classmates with whom I (virtually) shared the podium, Mr. Ozawa and Mr. Ida at Handa High School, the technical staff at TKP, and all my classmates in the 41st class. Their help and support were absolutely essential in making this event such a great success.

Mr. Iwahashi suggested I should write this essay for Shuryo in English. I was at first not so sure about that idea. On a second thought, however, I recalled one of the take-home messages I gave to you at the seminar was to "be different from others." Writing an essay in a foreign language surely would present a clear example of this take-home message in action, so I decided to

follow Iwahashi kun's suggestion. If you are reading this in English, thank you – you are also different, probably.

As my participation in the seminar was entirely online, I did not talk much about myself then. So let me begin this essay with a little bit of my personal history and background episodes.

During my middle school and high school years, I officially belonged to brass band and played tuba at school. But my true passion was always somewhere else – I was constantly developing various indie games on personal computers with my friends outside the band. PCs or Macs were not yet so popular back then, so we were writing non-generalizable, platform-specific codes for domestic personal computers manufactured by Fujitsu, Sharp, NEC, etc. Huge thanks to my parents, I was a proud owner and heavy user of Fujitsu Micro 7 (FM-7), one of the most popular types of domestic computers at that time. Today, all of those domestic computer architectures are long gone out of the market, so I can't run and demonstrate those fabulous games and other programs I wrote in my teenage years unfortunately. Nonetheless, it is clear to me such an experience of immersing oneself in a lot of computer programming was fundamental and formative for my professional and personal development.

Being deeply involved in a hobby of indie game development, my initial career preference was, obviously and naturally, to become a video game developer. We even organized group tours a couple of times to a computer game company in Nagoya (T&E SOFT – they are gone now, too) and showed our own work to professional game developers with an enthusiastic (but unsuccessful) hope that they might hire us after graduation.

But through all this effort, I gradually realized one subtle yet critical thing: I always enjoyed creating computer games but *didn't enjoy playing ones* as much. In fact, I was not good at playing video games at all. This rather weird asymmetry of interest slowly materialized inside me, merged with my other enthusiasm in mathematics and physics (special thanks to Mr. Jinno and Mr. Doi, among other great teachers at Handa High School, for introducing us to physics and math, respectively). It became clear over the years that what I was actually interested in was to represent the world in formal rules and see the world evolve following those rules in a computer. This realization moved my career preference more toward scientific application of computers.

When I graduated from high school, did I have an ambitious dream to become a researcher and professor, especially outside the country? *NOT AT ALL*. All I knew was that I liked computers and computer programming, so I had only a vague career plan to work on something related to computers, preferably in a science-y domain. The subsequent decades were full of various coincidences, challenges, environmental cues, and self-discovery moments, which altogether have shaped my life into what it looks like today. Here I describe a couple more of such episodes to illustrate how life can be unpredicted and exploratory.

Once I entered a college in Tokyo, I began participating in an inter-college performing arts group that produced a soundtrack for a fairly well-known sci-fi anime film. As an avid sci-fi anime fan back then, my hope in joining this group was that I could participate in a production of another cool anime soundtrack (which, by the way, never happened). I was active in this group for seven years, during which I was involved in many activities – not just doing performing arts myself, but also producing and managing events for domestic/foreign performers and touring with them all over Japan (a trivia

– I even served as a stage management assistant for a rock event where I worked with Demon Kogure and X Japan's Toshi). There was also a smaller portion of the group's activities in scientific research (as many of its members were university researchers), where I developed several computer simulation models of biological processes. This research experience made me realize that working in academia might be the most suited career path for me.

There were a few personal reasons why I liked academic working environment. One is my sociophobic nature; I generally prefer working alone rather than working in an organization or a collaborative team, and academia was good for such people in this regard. Another is that I have always been the kind of person who loves to create and output a bunch of (mostly useless) stuff, way more than to develop solutions to problems given by others. This means I was inherently unfit for corporate settings where you need to deliver solutions to problems brought by clients. Academia is one of the few places where one can have a greater freedom in choosing what to work on and who to work with (you can work alone if you prefer!). In a sense, my choice of an academic career was based on the method of elimination – there was simply no other thing left for me to do and be good at.

When it comes to my move to the United States, the rationale behind it was even less decisive and more environment-driven. My initial life plan was to obtain some stable researcher position in a rural university in Japan and have a happy hobbyist life without getting noticed. However, a personal matter shattered my plan completely. I got married at 26 with a woman I met at the inter-college performing arts group mentioned above. When we visited her parents, her father strongly encouraged me to go overseas to gain international experience. When you were trying to get permission of marriage from your girlfriend's parents, there would be no way other than just to say "yes" to

whatever her father said. So I followed his advice and began applying to many positions outside the country.

I was lucky enough to become a postdoctoral researcher in the Boston area with a scholarship from a private foundation in Japan. This was my first long-term overseas experience, which gave me a lot of new knowledge, skills, social connections, and global perspectives. But three years later, the 9/11 terrorism attack made us decide to go back to Japan. Back in Tokyo, I worked happily in a small technical university for a few years. Meanwhile, my family, already heavily accustomed to the US culture, were not entirely satisfied with the idea to live there permanently, so I eventually quit my job and moved to Binghamton University in 2006. Note that these career change decisions were almost all made by someone else or something else, and not quite by myself. This can be perfectly described by a Japanese word *nariyuki*, for which there is no good English word.

Looking back my trajectory this way, it feels funny that my original intentions were always *not* met but my actions always gave me something different that eventually changed my life at a fundamental level. Working on various indie game development projects and making visits to a game developer company did not let me land on a dream job in the video game industry, but instead moved me toward scientific computation. Joining the inter-college performing arts group did not give me the opportunity to get involved in a cool sci-fi anime soundtrack production, but instead let me meet my wonderful wife and get involved in academic research. I had no idea that getting married and having family would make me move across the ocean. Life has been always like that – unpredicted outcomes accumulate to shape your next directions.

I think there are a few lessons these episodes can provide. First, you should try a variety of things no matter what, without much predetermination. Each one of us is uniquely different from others, with unique strengths, limitations, and preferences. But those are largely unknown to us at the beginning. You can learn who you really are only by bumping into various things and situations many times and observing how you reacted to each of them. This is a time-consuming, life-long self-learning process (for example, I came to realize what my true research passion was only a few years ago). If you think you already know who you are and what you want to do, I bet with high probability that that is an illusion. Don't rush – it is not a good idea to make a too rigid decision on those matters anyway.

And that leads to the second lesson: you should remain flexible and be ready to seize an opportunity when one arises, even if it wasn't quite what you originally hoped for. I wasn't so sure if going into academia instead of getting a normal job, or quitting a stable domestic position and going overseas, was a wise move for my personal or professional life. But I did so anyway without much confidence or determination, and those moves definitely gave me invaluable exposure to the different parts of the world (and also the different parts of myself) that I had not known if I didn't make such moves. After all, life becomes meaningful *not* by whether you make a wise choice, but by what you actually do after you have made any choice.

I think I have written too much already, and it is time we got back to the main theme of our entrepreneurship seminar, "We Can Change the World." This theme may resonate well to some of you, or it may sound too bold and intimidating to some others. I assure you that both reactions are okay and normal. To those who felt the latter way, my personal stories given above may provide a different meaning of the phrase "Change the World." Here is

what I mean.

We don't have to struggle to change *the* world literally. Rather, if you interpret the world as "*your* world," then this phrase makes a lot more practical sense. You can certainly change *your* world, and you should. This may mean you can switch your school, job, career, hobby, physical location, or anything else about your current life. Going out of your comfort zone, entering new environments, and exploring new possibilities drastically change and expand your own world, as I described above with my own examples. Life is a continuous journey in which you keep learning about yourself and seeking/ forming a place for you to fit in. Meanwhile, whatever your current world is, you can also work hard to change that world by helping others and making meaningful improvements in your local community. All such local efforts will have significant positive impacts on you and others in your surroundings. Most importantly, if each one of us keeps changing their respective world according to their local, unique view and intension, the whole world will naturally change as well.

One final note – there may also be things that you can't or won't change inside yourself. In my case, my obsession to computers and sociophobia were probably among such things I couldn't change. This is also okay, since it is part of your uniqueness, and possibly, strength. You will just learn how to cope with them and make the best use of them for yourself and others.

At this moment of writing this essay (December 11th, 2019), I am actually staying at a research institute in Dresden, Germany, as a guest researcher. I have just arrived here yesterday and am already feeling a quite different "me" in this different environment. Changing your world certainly gives you opportunities for a change, growth, exploration, and surprises. It gives

you inspiration and power. So don't be afraid, change *your* world, change yourself, and influence others positively. I believe that is the best way to change our whole world, as a collective of diverse unique individuals, one local thing at a time. I entrust you with great hope, since the next world is yours.

All the best,
Hiroki Sayama

December 2019
In Dresden, Germany

2019年9月, シンガポールでの
国際会議にて（著者右端）

2018年12月, 韓国・ソウルでの研究集会にて
（著者左から2番目）