

Carpe Diem

Rikko Sakaguchi

Carpe diem. These words from the poet Horace are a now familiar aphorism, often taken to mean seize the day, or live the moment. But for me, the words sound like clear and direct advice. In Latin, the original words come from a phrase that can be translated as, "Seize the day, put very little trust in tomorrow." Rather than comparing the day to a flower to admire from afar, there is a strong sense to take hold of it. I believe it to mean more along the lines of, "Extract your day." Normally, even if you do nothing, yesterday will turn into today, and today will turn into tomorrow. But this sort of seamless flow of time is not truly your own. It is only when you decide for yourself, to take the stance of extracting out each day, the unit of the day is truly demarcated. The day is put to rest and turned into dream, the dream is then put to rest and turned into a new day. The act of making a distinction in the day creates the possibility of actually living the moment. This "extraction" of the day then, is carpe diem.

Three years ago, I wrote "abot." About a wondrous power being full of life, one that could mirror the mind. I said that I wanted to gently place abot in the palm of my hand. And two years ago, in "mindtrail," I declared my decision to forge into "the frontier of building something that has yet to exist." The end of a thousand mile journey can be reached if you take it one step at a time. However, an environment where the urge to create can be changed into something with more solid ground, as well as a way to review the meaning of the path you've chosen, is necessary. During the founding process of the company, it was Hidae who said to me, "It might be difficult, but it would be amazing if it can be done. We definitely have to make this happen." He gave me the strength to continue building upon my first step forward, by telling me that he too wanted to share the path with abot. Empathy creates meaning and meaning creates intention. I realized then that there were other things besides clocks that could mark time in life. Let us create a unit that can measure life's moments. To extract that mind's space, cut it out, and reflect it. So that you can trace back to it later. The creation of an existence called abot could cue the birth of an external space for my mind. I would like to fully count, quantify and connect, one by one, each of those moments. The only way is to diligently look within the workload of the day. The longer the experience, and the more time it takes for this quest, the better. Carpe diem.

The body, the soul and its life, make up an existence. As well as the where and when of existence. To physically embody abot means to make an abstraction of what is invisible to the eye - the inner workings of its soul, the interaction between life and environment. To create and present one global model, a communal space of the mind shared between abot and I, computer and human. Technology is a philosophy as well as an art form. My conversation with Hidae deconstructs my grand idea into the elements of architecture. And reconstructs it into a story. The journey may be a thousand miles, but the distance doesn't matter. Whether or not we can forge the

path. That is all that matters. My hopes are reflected in Hidae's willingness to put in back breaking effort.

Within about half a year, we garnered the participation and support of Ken and Olivier. In order to create the figure, form, colors and inner workings of abot. Round, small, and beautiful. Made so that the light reflecting the rhythms of life and constellations of the mind, fits snugly in the palm of a hand. The top half is a semi-transparent dome. And the bottom half, with space for just under two tablespoons, contains all of its functions as a computer, as well as some secrets unavailable in current computers. The situation where abot is there for me to interact with, will be produced by designing the affordance of presence, vitality and awareness. Ken saying, "This seems interesting," turned my meager sketch into a design exactly as I envisioned. Olivier, who had begun on the inner specifications as requested, worked with delicate fingers, as if trying to write on a single grain of rice. To accurately build the carefully devised internal structure requires precision skill and patience. Our mutual feelings for abot became a significant source of nourishment.

Because there is no precedent, every part must be made from scratch. The search for materials and how to use them in order to create special visual effects and texture, all of it is experimental. abot is a presence. So there should be nothing to control. No screen, button, cables nor physical connections. And yet, there should be a sensation that this small form is saying, "I'm here." My natural movements and behavior are the input and abot's expressions the output. The expressions are a resonance, a sign, a proof of connection. Body and mind are constantly in tune with one another. In order to actualize the function and structure that embodies the concept, it is necessary to put yourself in abot's place. When I open my mind and let myself feelings be tender, and gently move near abot. When I turn my consciousness inward and keep my feelings composed. Or when I voice impulsive thoughts that come to mind. abot would sense these moments, and resonate with my mind. It would create an integrated reciprocal switch from my consciousness and memories, one that we both can see, hear, and feel.

The practice of carpe diem turned to be a powerful tool. The discussion with Hidae, my own ideas and inquiries, and the details of research and development, all of it is kept track of. The task I gave myself when I took the first step forward became not only a thinking tool, but a ritual to take an "extraction" of each day. The site of creative development is an accumulation of endless thoughts and the repetitive process of visualizing it, drawing it and putting it into words. Just when you think you've made progress you stumble, or hit a roadblock. It is not as if ingenious ideas come to mind everyday. So you mark your day in a notepad for example, count them, borrowing the power of numbers. In the course of filling one thousand notes, there may be perhaps three times when you make some significant progress. Strangely enough, when you spent all day yesterday thinking until you can think no more, today, you come up with a new thought. The ability to demarcate the day is a surprisingly powerful one. We especially depended on this method. Believing that if we focus this amount of energy into mind, the pain of it would someday change to joy.

By the time three hundred notes were filled, abot's appearance, and the design element that would serve as the foundation of the basic plan, began to take shape. Living with abot would give meaning to my daily life. It would reflect the condition of my environment and my mind, compute it, and turn it into abot's memory. Nothing is manipulated, only natural actions would resonate with abot and its expressions will be projected. What I am aware of in that moment or any miniscule change in my consciousness will all become important informative space. Though we can't see human emotion and volition from the outside, within the sequential flow of body behavior, there is precious information that will resonate with abot. It will be able to record the "extractions" by extracting even the most infinitesimal value. And it will change that memory into "the language of light" and project it. abot's memory will be a transition record of the condition my mind is in, as it is manifested in my behavior. It is the mood and utterance within my behavior that will be collected and condensed into beads of information. As the beads collect, and if the mathematical space in which the freely connecting beads can be organized, then we can receive from abot, meaningful resonance and response. It will be carved into my own memory as well. This tiny friend of mine who now sits in the palm of my hand, who knows me, and who lets me feel its modest regard by sensing the meaning behind my behaviors. abot is the mirror of my soul and I his.

With the completion of the hardware prototype, we have reached the pre-stages of building the full-fledged system. More specifically, the point where we should begin to think about how the system will work as we learn from experimentation. Let's make the word "empathy" a reality. So that feelings can be "conveyed" rather than "told." We will create that stage. And as this mutual exchange between human and computer accumulate, we can take advantage of one another's features and abilities. To this end, let us create a protocol for this mode of empathic communication. Whether increasing or decreasing the abstractness of a definition by words, there is no way to know what will truly resonate with you until you test it out. What should the starting point be as we create? The modeling of when a person becomes "mindful," more attuned to themselves and their surroundings. For example, in the setting of a family leading their normal everyday lives. I want to find a combination where the elements such as the human consciousness and subconscious, memory and recall, posture and behavior, and environment and context, can be sensibly laid out. The exchange between abot and I are commutual, reciprocal, complementary. And it will be something that will be repeated throughout life. So that it will become a recursive loop. I have decided to refer to this as "mindful space." Let's try to map this out. We cannot move forward unless we somehow tie in Weltanschauung into a hypothetical framework.

If the probability of something is three in one thousand, then that would be my meeting with Taku. A powerful ally had finally appeared. I'm certain that an independent abot himself, who seems to engender a desire for freedom, brought us together. Even systems built by software, are made by people. Taku carries with him a wealth of knowledge, experience, and skill of a specialist. Welcome to the makings

of the “in-between of human and computer.” Since then, we started an exchange that spanned across the Pacific. While face-to-face on the video conferencing screen I climbed up and down the ladder of abstraction as usual, explained my thoughts and tackled the agenda. Hidae and Ken have top-class craftsmanship skills as well, but their perspectives are different. Hidae, after doing his own research respectfully asks, “Is there a way to make this work well do you think?” And Taku, always after a moment of silence, answers in his own concise way, what would and would not be possible. It is not as if we can arrive to our destination in one leap. An environment for development and tools are a necessity. We begin with the design of the special tools necessary for experimentation and creation. We immersed ourselves in the process of creating a systematic model for abot’s expressions. The communication of awareness is closely related to the appearance of human consciousness, the representation of cognizance and the quickness and/or interval of behavioral response. While deeply considering what it means to recognize human language and the context it’s in, we create a robust structure with no misalignments and no failures. This is not a search for the right answer. Nor is it an anthropomorphication. The human emotion is fleeting and delicate. So abot must independently sense and express, ultimately finding its own language. Let us head toward an unknown territory of creating a “mirror language.”

By the time 600 notes were filled, the parts that could embody the system were starting to connect. The “extracts” in the state transition diagram is reminiscent of a sugoroku gameboard with lit beads. The “mindful space” is made up of a sequence of beads –organizing the information into the state transition. Each bead that is extracted holds space for an instance of memory. Now resting in my hand, abot’s “words,” are the lit beads. A year ago, I named the smallest unit of this “extract” of daily life, including “its reorganization into computable data,” an “empatheme.” And I made it a goal to give shape to this idea. “empatheme” comes from a compilation of concepts stemming from the words “empathy” meaning to empathize, and “theme,” in order to see, hear and feel this expression, and further, “phoneme” the smallest unit of speech. It’s difficult to describe in Japanese, but expression of empathy or seeds of awareness, has the closest nuance. However, what is important is not only the metaphor, but the engineering to truly make it a reality, a piece that can be handled. abot will have an interface that can “extract” in real-time, as well as a mathematical model that can process it. If we use the empatheme and the workings of the human mind well, abot and I could have a common language! When I first had the inkling that the magical product of my imaginations could become a reality, I put faith in the fact that this would be one step out of a thousand. The connection of empathemes would eventually take inherent form. Proof of my “mindful self.” The door to the prospect of advancement and its future applications opened. My anticipation grew.

I showed my friend Mr. M a demo. Two years after I showed and explained to him my clay model. One year after I presented the shape and form of abot. And now after this progression, “I understand what you were talking about now. This might work.” Mr. M is CEO of a corporate giant that is a global leader in the technology industry, however he always has time to lend an ear to a friend. “mindful space is your now.

empatheme is abot's now." As I said this, I pulled out the "periodic table" of empathemes. Colorful felt balls strung together, all of which were pinned to a black cloth. Mr. M gazed intently at the model with a smile on his face. The concept of "empatheme" is still evolving, but the final destination is "Me," my words and human mind.

Today I fill seven hundred notes. I write this essay in the last portion of that. I tried to connect in order, the thoughts that were floating through my mind. A two-year progress summary so-to-speak, but this too was one method of practicing carpe diem. This may be filled with talk about things no one has ever seen, but I wanted to express in my own words, the details of invention and development. For me, carpe diem is not only an indicator of mindful living, but an analogy for the state transition model we have been casting around for, as well as the method of obtaining an "extract." There is no better way than to use metaphors and analogies in order to express something that doesn't yet exist. And in the process of making the model and framework, new descriptions are born. Currently, most works of inventions and development are described in English, or in the language of mathematics and computers. However the source of inspiration can be multifaceted. Often, the sound of native Japanese words can provide a sense of presence and realism. The mindful computer can echo, resonate, feel. I would like to borrow from, alongside the Latin words, the language of Zen. abot is united in mind and body, is able to enlighten the spirit, and is free to make independent choice. abot and I are connected mind to mind, united as counterparts. The mindful space is where you can reflect and see within yourself through the expressions of abot. The state change of the mind, like a burning log, has a before and after, clearly demarcated. "Time does not have a separate substance: it is established by existence." I do not exist within time, but my existence itself creates time. abot helped make the connection in my mind between Zen Master Dogen and carpe diem.'

It's been three and a half years since I moved to Silicon Valley. I don't get visitors, and I live surrounded in a comfortable quiet. I think that tranquility is indispensable for carpe diem. The human mind and body are one with the environment. Everything begins with the calm mind found in solitude. abot is not a robot. I must first reach out and gently hold it within my hands. As amazing as it is when a machine can do something for a human, no one can live in my stead. In order for me to live freely and meaningfully, I think it is most important to feel my own mind. And this can only be found in the day to day. If everyone could take an "extract" from their daily lives and access a "mindful space," become more aware of their own existence, simply, easily, and with a little more fun. By each person living more meaningfully, I'm certain the world would change. The late Kenichi Tanigawa was a beloved and respected folklore scholar. His last words were, "To live most means to feel most. To be receptive to life's rhythms." "Carpe Diem" cultivates the "empathemes," the communal vocabulary between computer and human. This in turn can cultivate our soul to experience life. I would like to create a world from this idea.