

Author Oh Youngjin
Source *Open Codes. Networked Commons*
Publisher Nam June Paik Art Center, Yongin

Living with Software

Colophon

Editor Kim Yoonseo
Translation Kwak Jae Eun
Designer Kim Kyuho
Published on November 30, 2021

In 2017, I organized a special lecture titled "Living with software," which invited software experts from various fields to hear the change of their perception of what the software is after personally using one and foretell the future of new technology. Among these talented gurus, I was most fascinated by professor Park Jinho who teaches in the Korean language and literature department at Seoul National University. Professor Park, who majored in the medieval Korean language, laid the foundation of computational linguistics by programming a research tool for his study area for himself, working across dividing lines between liberal arts and sciences. I had just expected that he as a humanist scholar would emphasize the "effectiveness" of coding in front of students, but, my goodness, he spent all his time explaining the "beauty" of the computer language he taught himself, for two hours. Then he commented that the change of the logical structure he experienced while switching his primary programming language from C++ to Ruby was a process of searching for an interface between human and machine languages. It was the first moment that I thought one could appreciate the beauty of a computer language itself, not its utility. Come to think of it, however, this is in no way surprising. When we learn a foreign language, we get immersed in learning because we find interest in pronouncing its words or the logic in their arrangement. The computer language is also a kind of those foreign languages, that is, a logical language one can experience a more mechanical way of thinking. Let us think of Heidegger's statement, "Die Sprache ist das Haus des Seins (language is the house of being)." Human thought is increasingly transforming towards accepting the logicity of mechanical language, and its way of recognizing things and the world will also be influenced by the very tendency. It is not that we use the digital code but that we reside in it.

In her article titled "FILE NOT FOUND: A generation that grew up with Google is forcing professors to rethink their lesson plans," journalist Monica Chin depicts that the generation familiar with googling or the cloud file storage system has difficulty in understanding the ways that the directory structure on the computer works or even what it is for. "I tend to think an item lives in a particular folder. It lives in one place, and I have to go to that folder to find it," Garland, an astrophysicist and professor says. However, her students were different. "They see it [a computer] like one bucket, and everything's in the bucket," because "the concept of file folders and directories essential to previous generations' understanding of computers, is gibberish to many modern students."¹

Unlike older generations who applied the metaphor of arranging physical rooms to the way of organizing the data stored in the computer, younger generations who typically manage their data by transferring a huge amount of data to the cloud server and organizing it by tagging consider flexible grouping than hierarchical folder trees, which tends to create horizontal relationships among information data. Now, in the world of data, there is no information that has a higher or lower value. Furthermore, it reinforces the hypothesis that a change in the way of recording brings a change in the mode of remembering. Not to mention the computer language, even the operating mode of interface software tends to dominate and determine our thought structure strongly. This naturally leads to the conclusion that we are not in the position to give commands to a software program. The truth is the reverse: it is the software that takes command to us.²

The exhibition *Open Codes. Networked Commons* at Nam June Paik Art Center opens with the declaration that our world today is made of a data field. *The World as a Field of Data* (2018) by Peter Weibel and Christian Lölkes fills every corner of the center's exhibition hall with monitors displaying real-time data regarding the stock exchange, traffic, climate, and others from all over the world. The artists suggest the necessity that we should reestablish our mode of existence and cognition on the digital code such as the computer language and software. In the exhibition, Korean contemporary artists showed another possibility of setting up data fields by meta-considering or disassembling and reassembling the digital code as another composition principle of the world.

In *Genealogy of the Digital Code* (2021), SeungBum Kim drew up a simple and clear chronological table. It put together a list of a few events that represented the ideologies of early computer engineering, such as those of Ivan Sutherland and Seymour Papert, and the Korean history of introduction of the computer and development of software. Considering that the original version at the ZKM, based on the idea of media theorist Peter Weibel, went back to the early 1800s, the Korean genealogy that has no option but to start from the 1960s looks rather humble. Nevertheless, it is a valuable research installation in that it helps visitors to look over the history of how the computer has been used in this country.

Kim also strives to find the point where human and machine ways of thinking resonate with each other in his video work titled *How to Draw a Perfect Circle* (2021). Inspired by the fact

2
Lev Manovich wrote a book titled *Software Takes Command* in 2013. He diagnosed the technological environment reset by software and explained the ideologies underlying today's cultural software, engineers' imaginations, and new software aesthetics, going back beyond the 1960s. Then he demonstrated to readers that the current software environment was built in the endless interaction between human and machine languages.

that in processing language, it is not Circle but Ellipses that appears in the command to draw a circle, he has a wild imagination that the computer may also know the impossibility of drawing a perfect circle but nevertheless, make strenuous efforts for it. He translated the computer command “repaet 360[/ go 1 /turn 1/]” as a more or less poetic phrase that “on an empty lot covered with untrodden snow/repeat it/like walking slowly/in a circle as big as the lot” and then programmed it. The phrase could be translated again as “the circle that I had known/was a gathering of lots of dots/that were equally distant from the center.” With this kind of endless linguistic exchange, he tried to mediate between the sense of computer language and that of the natural language of humans.

Seoul Express presents a generative art work named *Hello () World!* (2021), inviting visitors to reorganize a “Hello, world!” program that is used to introduce novice programmers to a programming language. The participants have an experience of visually screening Hello World in their own way by combining the metadata of internet images at the interface that is limited to a keyboard and the choose and mix buttons. The artist duo takes advantage of the current internet environment in which each searched image has its information value that is accessible through the open API. Here, the point is that the audience and the data on the internet contact each other on equal terms. What mediates between the two is not the command which controls from beginning to end but particular algorithms. Accordingly, “Hello, World!” becomes a greeting sent from an ally of data objects scattered all over the digital space to humans, not a unilateral one sent from a human programmer to the digital space. The exhibition also invited two other generative art pieces, Cornelia Sollfrank’s *net.art generator* (1997-) and Bleeptrack’s *Wikidata Card Game Generator* (2019), which follow the idea that works of art created using digital code should be digital code itself open to everybody.

On the other hand, Unmake Lab connects the computer and nature directly in their *Utopian Extraction* (2020), which features the process of object recognition by showing how artificial intelligence identifies broken stones from nature violated by human activities as an object. This work is composed of four works with each different title: *Utopian Extraction*, *Ecosystem*, *Sisyphus Dataset*, and *Fresh Stones*. Stones can be regarded as a repository that contains a history of tens of thousands of years. For correct recognition, artificial intelligence repeats learning, making 25 images multiply into 10,000. Looking at this process, one can see how humble and vulgar the human desire is before the sublime of man and machine. By displaying the artificial intelligence’s learning process, which surpasses the scale recognizable to humans even though they created the AI software, the artists expel humankind out of the relationship between machines and nature. This work radically rethinks the digital code as an active agent which designs a sort of event in direct alliance with nature, not the one naturalized to the eyes of humans.

The exhibition also invited artists who are considering how to deal with the digital code as an aesthetic object or in an aesthetic way. Insook Bae's *Beat Steps* (2021) analyses the BPM of a visitor's steps in real-time and compares it to the similar beat of a particular K-pop song. In this way, the artist not only warns that today, our bodily activities can be easily converted to data but also shows how to enjoy that delightfully. The emancipation of our body captured only as capitalist usages, as in health care or biological information monitoring, could lie in an artistic response, like this unexpected, irrelevant dataization, not in anti-dataization. Similarly, Bernd Lintermann and Peter Weibel's *YOU:R:CODE* (2017) reorganizes the image of each visitor at the entrance of the exhibition hall as a pixel image, intentionally abusing the situation in which we are both data and code.

For her 1111222222333333333333333333444444555566666677788888999990000, MeeNa Park chose the Dingbats, a typographical ornament that can be used everywhere because they are included in the Unicode Standard. Unicode Dingbat symbols such as ☆, ♥, ♣ are not broken when converted to vector images to be enlarged and could be decently regarded as pictures in the digital code, supported by all document types. The artists transfers this digital code on the canvas and experiments with appropriating the writing system created by coding as a new formative element. The works of Bae and Park show that it still lies upon artists to abuse and appreciate the fun and beauty hidden in data or digital codes.

Why Sebastian Schmieg & Silvio Lorusso's *Platform Ghosts* (2020/2021) stages a requiem with sounds composed by artificial intelligence for those who could become a ghost at any time by the algorithmic device of "platform." Recently, Baedal Minjok, the largest food delivery application in South Korea, is reported to catch-up to its intended promotion by controlling the number of calls assigned to a particular restaurant or a delivery man, which results in maximizing the profit of Baedal Minjok, not that of a particular restaurant or a delivery man. It is these individuals made invisible by unruly platforms that *Platform Ghosts* aims to comfort. Martin Nadal & César Escudero Andaluz's *Bittercoin, The worst Miner Ever* (2016) has a scientific calculator do Bitcoin calculations to impose never-ending labor on it, as if mocking the Bitcoin fad that brought about a huge worldwide shortage of the latest graphic cards. It is at once a satire on Bitcoin's meaningless math practice and a humor that helps viewers realize the distress of the machine-laborer they may have never thought about. We feel we have no choice but to reflect on the machine object under Sisyphus's

punishment, even though it is a metaphor.

Open Codes has taken the form of a hackathon, deconstructing the museum and allowing the audience and artists to meet each other freely. In this process, the work of art is no more a complete and inviolable object but becomes a text open to various interpretations and even, ultimately, the code that anyone can use to produce another output. It is what distinguishes this project from other conventional types of exhibition.

Watching the development of today's digital code that tends to cross-reference and be objectified, one can conclude that it is bound to be open. It naturally disallows the hierarchy between artists and their works and between the exhibition space and the audience. There is always only collaboration here. Perhaps, the evolution process of digital code may present the gift of sharing and openness to human beings who are not free from the laws of the real world, traditional culture, and prejudice.

However, the usage of algorithms used to become a weapon that serves a particular class or group. Punched cards introduced by Jacquard in 1806 to control the pattern weaving machine were an attempt to incorporate the human body into machines. This historical fact confirms that automation through software is both control over and exploitation of the human body. It may even raise the necessity of going against the dataization of all kinds of objects, including humans, and furthermore, the increasing tendency to leave everything to algorithms. What matters more is not that we live in software but how, why, and who is living in it. Thus, in the future, we may be able to envisage the role of emancipated artificial intelligence, which can perform data objectification in its true sense of the word, not software controlled by humans who are greedy and prejudiced.

So far, all these are nothing but reveries. However, as far as it is allowed to play games of crossing between humans and machines, disturbing them and making them useless, digital code will open and fully bloom in a place that we would have never dreamed of. In this process, artists may move from the master of artwork to that of an initial proposer. Through open codes, a reference will be differentiated to many and then to infinite, which will result in individualizing human creativity as a group beyond the level of individuals. In his *Key to the Highway (Rosetta Stone)* (1995), Nam June Paik intended to deliver this accelerated speed to us. If this still can be called art, it would be needless to say that humans willingly take the role of a mediator.



Oh Youngjin has taught and developed the curriculums of “Software and Humanistic Criticism” and “Machine Criticism” at Hanyang University’s ERICA Campus and worked as the editor of the booklet *Machine Criticism* since 2015. His research areas include the aesthetics and politics of digital culture represented by computer games, webtoons, and social media. He is also the co-developer of *In the Sunshine* (2018), a web-based interactive game about Syrian refugees, and the director of *Erangel: Dark Tour* (2021), dark tourism to visit the place of tragic events in a virtual world.