Analog is the Future: Statement on the Aesthetics of Video Feedback

Masayuki Kawai

Data, the Analog and Digital

We must begin by defining the concept of data. The word 'data' is used very carelessly today. Its original meaning in Latin is 'the given', referring to a certain condition in a given situation. Being thus conditional, pure data never bears relation to representation or meaning. Neither does it connote numeric values gathered through statistics or accumulated by a computer's memory. Data comes before information; it is prior to meaning.

There are two ways to deal with data: accepting the whole condition whether or not its data is perceived to have meaning, or, extracting from it only what is perceived as useful meaning-information. The former constitutes the analog approach and the latter, the digital.

Generally—and mistakenly—the distinction between the two approaches is thought to indicate a sequence of technological advancement: the analog incomplete, obsolete, disadvantaged; the digital new, advantageous, complete. This misconception may have originated in commercial advertising, and against it I shall protest: no, 'the analog' actually poses our future.

Why? Put simply, digital systems create patterns and order from more chaotic systems or situations. But as the digital is subject to utility, it is bound to a static institutionality that shuts out new elements and ultimately produces dead systems that fully and finally self-complete. By contrast, the analog system is open to contingency and uncertainty. That is to say, it necessarily includes chaotic elements that deviate from the static ground, and this deviation gradually leads to the overthrow of deadlocked institutions, revitalizing the overall system.

These two types of data processing, digital and analog, have functioned as our basic ways of relating to the world since the moment of our awakening as human. They are two modes of thought or consciousness, manifesting as different attitudes toward any given situation: we can seek to tame the condition by logically abstracting from it what is valuable and abandoning the rest as valueless, or accept and respond to the condition's temporality and flux.

Gregory Bateson argued that these two processes function in parallel and are weighted equally against each other in human thought, in organic life, and in the natural environment. Bateson distinguished between them as 'the somatic' and 'the genetic,' claiming that they work combinatorially within the constitution of ecological systems, biological evolution by bodily changes collaborated with changes in DNA, and also in human cognition and thought, all of which vouch bilateral processes he called 'the mind' (*Mind and Nature*, 1979).

Following Bateson, climate, life, and thought all must consist of more than digital-genetic processes. In each of these fields, as well as the digital processes that compile and parse data and are oriented toward order, there is an essential functioning of the analog-somatic process— a process which tempers the combinatorial system, embraces the given data, and continues to generate differences by deviation. If the analog is renounced and the digital only is trusted, that system will lose its flexibility and rush to its own extinction.

The Analog in Video Art

My works create electronic data feedback via closed circuits consisting solely of analog video devices and cables, without the use of any image sources, footage or computer graphics. In the loop circuits, the technical and structural elements of video such as reference signals, synchronous signals, heat, fluctuating voltage, and electromagnetics detected by cables—all integrate into analog data which then recur, becoming visible and audible. Data is output directly as image and sound in an analog stream that self-amplifies recursively, without digital conversion, and the shape, color, and tone continue to change indefinitely.

Analog video systems, in principle, treat data as 'the given'; the periodically varying voltages, currents and fields that comprise their data can be graphed as a waveform and are processed through modulation, preserving the wave's continuity. The data's progression, the wave, is open to chance and event. Digital systems, on the other hand, transform data into the discreet digits 0 and 1; they distinguish what is useful ('signal') and what is useless ('noise'), maintaining the former while functionally excluding the latter by transforming it into analyzable signal, following the economy of informational meaning.

The contrast between analog and digital processing is made vividly evident by the behavior of their respective closed-circuit feedback loops. As it recurs, digital data feedback converges on utility and meaning and strengthens its control over information. It then eventually takes on a form of institutionality, pervading all existence with its fixation on criteria as all data either conforms or does not to the pre-established program. Analog data feedback is constantly affected by uncertainty, generates difference, and thereby always deviates from institutionality. Analog deviation rejects the strictures of meaning and intrinsically contains a numberless diversity.

Deviation generated by analog feedback should, it is worth noting, be distinguished from digital operations such as glitching or pseudo-random number generators, although these also might seem to be expressions of uncontrollability. Analog deviation is a 'positive' transgression, a necessary and constant feature of a scheme that encompasses every possible potentiality held by each situation. But glitches and digital randomization are merely the results of (errors in) programmed processes, more temporary and 'negative' transgressions. While they might appear as disorder under the control of a programmed system, they represent no more than simulated contingency.

Analog Video Art in Society

I define video as a meeting of electrons and sight—namely, electronic sight. I mean that: data is processed in the video circuit in the form of an electric current (representable as a waveform); light is an electromagnetic wave; nerve impulses control human perception via electrical signals; in sum, the electrical functions of data, light, perception, and action are united in the field we call video through this common agent. In *Kommunikologie* (1994), Vilém Flusser argued that, in a media society, people are inseparable from their visual apparatuses. Video as an electronic/organic phenomenon is most significant for its temporal immediacy—it connects

human action with physical phenomena and mechanic function in the immediate moment, thus making data transmission and human psychosomatic desire temporally identifiable with each other. Therefore video, being the electronic movement of data, actually combines the organic and the inorganic at each instant.

Norbert Wiener claimed that organisms and machinery can both be regarded as feedback-based informational systems of communication and control (*Cybernetics*, 1948, *Human Use of Human Beings*, 1950). Following Wiener and expanding his feedback model, we can regard the whole of media today as an aggregation of closed circuits in which persons, organizations, and machines are included and connected—that is, a situation suffused with the feedback of that which I will call 'data-desire'. The orientation provided by unavoidable and compulsive act of data equals human desire and cannot be separated or digitally parsed. Yet societies today attempt to sterilize data-desire and reify a non-analog approach to living within data.

In the media society, electronic sight—video—functions as the most important apparatus of communication and control. (To wit, surveillance video systems are referred to as 'closed-circuit video.') Data feedback in the society does not only digitally execute informational control, however; it also brings about an analog deviation by passing through the existential phases of perception, action, and reaction—all of these mediated by desire.

Here appears the political role of video art as a form of struggle in contemporary society, against the media society's institutional control through digital feedback via processes which, as we have seen, must end in rigidity. Making art with video infiltrates the most important apparatus of this control and reveals that feedback systems can, if allowed, also tend toward analog deviation and innumerable possibility. It diffuses criticism and resistance by exposing natural potential deviation, taking advantage of the institutional media embedded in modern society as a means of dispersal.

From a broader perspective, Wiener grasped the phenomenon of feedback as the enclave where hypothetically the second law of thermodynamics is reversed. In other words, feedback systems produces negentropy which works against the universal tendency to increasing entropy. In his pan-physical point of view, the pairing of analog and digital feedback as distinguished by Bateson follows the principle of emergence in complex systems. Analog feedback takes new entropy in to produce negentropy, and is necessary to ensure some chaotic uncertainty within the data set. (Michel Serres referred to this kind of chaos—which might be the foundation for emergence—using the Old French word *noise*, meaning 'strife.') Analog video feedback actualizes an ongoing moment of fundamental emergence through the direct sensorial apprehension of electronic movement or *noise*.

Analog video feedback is, accordingly, not limited to being observed as picturesque, curious, or even unwanted visual phenomena. First, it discloses the actuality of contemporary existence: directly involving our sight, it forces one to experience one's own perception and reaction in connection with visuality, and to discover the inseparability of data and desire, overcoming the delusion that there is some 'purely' digital future. Next, it affects our political attitudes: reorienting sight away from consumerist models, it manifests as a force that dares to resist the statically-controlled situation. Further, video feedback reveals that electronic data-desire goes beyond the worlds of organic life and death, also occupying inorganic physical activity such as that of machines or light. Finally, it appears beyond the worldly realm as a reflexion of the principle of universal emergence.

These aesthetics proposed by analog video feedback are not regressive in the slightest. They have much to offer open questions about the fundamentals of the universe currently being

investigated at the forefront of philosophy and science; they liberate our sight-based desires from the digital totalitarianism of media society, projecting them to the universal phase beyond the boundaries of organicity. It is video art that shows us these both intrinsic and futuristic possibilities of the analog.

(12.2019)

About the author:

Masayuki Kawai was born in 1972. He creates video works in a unique style that offers radical visions of philosophy and politics derived from his consideration and criticism of informational society and the essence of media. His exploratory techniques and activities are unconstrained by genres such as film, contemporary art, and media art. His works have been shown in over 30 countries and have received numerous awards in festivals and exhibitions, including Oberhausen Short Film Festival and Young Video Artists Initiative at Mori Art Museum in Tokyo. They are collected by Queens Museum of Art in New York (USA) and National Museum of Art in Osaka (Japan).

Kawai was invited artist in residence at the Jerusalem Center for Visual Arts, ISCP (USA), and at Le Cube and Cité internationale des arts in Paris, with support from the Jerusalem Foundation, Agency for Cultural Affairs for Japanese Government, POLA Art Foundation, Tokyo Wonder Site, City Government of Paris and Culturesfrance.

To establish a critical role for video art in the society of spectacle, Kawai as video artist, curator and writer has directed a number of challenging exhibitions and festivals, and published a theoretical monograph delineating the field of 'visual philosophy.' He holds a B.A. in aesthetics and an M.A. in representation and culture from The University of Tokyo.

http://masayukikawai.com/