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

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We must begin by defining the concept of *data*. Though the word *data* is used very carelessly today, its original meaning in Latin is "the given." It thus refers to a certain disposition in a given situation. The meaning of pure data itself never refers to a relation to any representation or meaning. In fact, it doesn't stand for numeric values gathered through statistics or accumulated within a computer's memory. Data comes before information; it is prior to meaning.

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

Generally—and mistakenly—the distinction between the two is thought to express different stages of technological advance: the analog is obsolete and incomplete, whereas the digital is new and complete. This easy misconception of advantage and disadvantage may have originated in commercial advertising, against which I shall protest: no, the analog is actually the future.

Why? To put it simply, the digital creates patterns and order from chaos. But as digital systems are subject to utility, they are bound to a static institutionality that shuts new elements out and will ultimately end up as a dead system that is fully completed within itself. In contrast, the analog is open to contingency and uncertainty. That is, it always includes chaotic elements that deviate from the static, and it gradually leads to the overthrow of deadlocked institutions to revitalize the overall system.

These two types of data processes, the digital and the analog, have functioned as our basic ways of relating to the world since the very moment when human beings awakened as human. These processes represent different attitudes toward a given situation: using the logic of taming it and abstracting the valuable from it, then abandoning the rest as the valueless; or accepting and responding to its continuity and temporal nature. Therefore, the analog and digital are two modes of human thought or consciousness.

Moreover, this pair is also seen in other areas. Gregory Bateson distinguished the two processes and named them the somatic and the genetic, claiming their combination works in biological evolution via the bilateral processes of DNA and individual adaptation, or the constitutions of ecological systems as well as human thought, all of which he called the 'mind' (*Mind and Nature*). The two—analog and digital processes—function equally and in parallel in human thought, the principle of life in organisms, and in our natural environment.

Thus, nature, life, and thought all consist of more than digital-genetic processes. In each of these fields, in contrast to the digital processes that incessantly make patterns from data and are always obedient to order, there is an essential functioning of the analog-somatic process—a process which opens the system to the exterior, encompasses the given data, and continues to generate differences by deviation. If the analog is renounced and the digital is left to stand alone, the system will lose its flexibility and rush into its own extinction.

My works create electronic data feedback via closed circuits constituted by analog video devices and cables, without any prepared image sources like camera shots or computer graphics. In the loop circuits, all of the elements—such as technical and structural bodies of video like reference signals and synchronous signals and their sways, fluctuation of electric voltage, heat, and the present electromagnetic situation picked up by the cables—integrate into analog data which then recurs, amplified. The data is output directly as image and sound in an analog fashion, without digital conversion, and the figure, color, and tone continue to change infinitely.

Analog video systems, in principle, treat data analogically as "the given." In it, data takes the form of an electronic wave and is processed through modulation, preserving its continuity. Thus it is open to every chance and event. On the other hand, digital systems transform data into discreet digits, such as 0 and 1. That is to say, it distinguishes what is useful and useless—signal and noise—maintaining the former while excluding the latter. It therefore follows the economy of informational meaning.

This gap between the analog and the digital appears vividly in closed circuit feedback loops. While recurring, digital data feedback converges on utility and meaning and strengthens its control over information. It then eventually takes on a form of institutionality. Analog data feedback, in contrast, introduces more and more uncertainty to generate difference, and thereby always deviates from institutionality as such.

These deviations by analog feedback, however, should be distinguished from digital operations such as glitch or pseudo random number generators, although both might seem to be expressions of uncontrollability. Analog deviation is a kind of positive transgression, a necessary and constant result of a system that encompasses every possible change in a situation. But glitch and pseudo random number generators are merely results of (errors in) programmed processes, a kind of temporary and negative transgression. Analog deviation is a direct reflexion of a situation open to the outer world and intrinsically contains a numberless diversity. Digital glitch or pseudo random number generators appear as disorder under the control of a programmed system, and represent no more than simulated contingency.

When we define video as the unity of electrons and sight—namely, *electronic sight*—we make these facts clear: the data processed in the video circuit takes the form of an electric current or electric wave; light is an electric wave and the nerve impulses that control human perception or actions come in the form of an electric current; thus, electronic data, light, perception, and action are united in video, sharing the common agent of electronic movement. Vilém Flusser argued that in a media society, people are inseparable from their visual apparatuses (*Kommunikologie*). In fact, electronic sight takes on the traits of the electron, the most significant of which is its speed—or temporal immediacy—and connects human works with physical phenomena and mechanic functions, thus making data and desire identifiable with each other. Therefore video, by the movement of electronic data, combines the organic and inorganic.

Norbert Wiener claimed that both organisms, like life or society, and machinery can be regarded as feedback-based informational systems of communication and control (*Cybernetics*, and *Human Use of Human Being*). Following Weiner and expanding the feedback model, we can regard the whole of media society today as an aggregation of closed circuits in which numerous persons, organizations, and machines are included and connected—i.e. a situation suffused with the feedback of data-desire. In this society, it is unquestionable that electronic sight—or video—functions as the most important apparatus of communication and control. (To give a symbolic example: surveillance video systems are referred to as "closed circuit video.") Data feedbacking in a media society not only digitally executes an informational control, however: at the same time, it brings about an analogical deviation as long as it—also as desire—passes through existential phases such as perception, action, and reaction.

Here appears the political role of video art as a form of struggle in contemporary society. That is, against the media society's institutional control through digital feedback, which must end in the rigidity, video art takes over the most important apparatus of this control and reveals that feedback can also tend toward analog deviation. Moreover, it diffuses criticism and resistance by means of this deviation, taking advantage of the institutional media spread across society.

From broader perspective, Wiener grasped the phenomenon of feedback as the enclave from which one might resist the second law of thermodynamics. In other words, the feedback system produces negentropy against the universal tendency of increasing entropy. In this pan-physical point of view, the pair of analog and digital feedback shown by Bateson functions also as the principle of emergence in the universe. Analog feedback takes in new entropy to produce negentropy. Only from chaos can any order be generated in the universe, and the analog system is necessary to open up the uncertainty of data in order to approach this chaos. (Michel Serre referred to said chaos—a chaos which might be the foundation for emergence—by an obsolete French word: *noise*.) Analog video feedback actualizes this moment of universal emergence—or singularity—through the direct appearance of electronic movement.

Analog feedback is accordingly never limited to picturesque phenomena to be observed or enjoyed. First, it directly involves our sight and discloses the actuality of contemporary existence: it forces the viewer to experience their own perception and reactions in connection with the visual apparatus, and to discover the inseparability of data and desire. Next, it affects our attitudes of sight politically: it re-creates our sight by shifting it away from consumerist models as it adapts itself to our statically controlled society and becomes a force that dares to resist the situation. Furthermore, video feedback reveals that electronic data-desire goes beyond the boundaries of organisms such as human beings, life, and society and penetrates also inorganic fields of physical phenomena like the activities of machines or light. Finally, it appears beyond the worlds of organic life and death as a reflexion of the universal principle of emergence.

These aesthetic ranges proposed by analog video feedback are not nostalgic in the slightest. They dialectically interact with ideas at the forefront of philosophy and science, liberate our sight-based desires from the digital totalitarianism of media society, and project them to the universal phase, beyond the boundaries of the organic and inorganic. Video art is what opens up these intrinsic possibilities of the analog.

About the Author:

Masayuki Kawai was born in 1972. He creates video works in a unique style that takes radical visions of philosophy and politics from the standpoint of the consideration and criticism of informational society and the essence of media. He explores his broad styles and activities unconstrained by existing genres such as films, contemporary arts, and media arts. His works have been shown in over 30 countries and has received numerous awards in media art festivals and exhibitions around the world including Oberhausen Short Film Festval and Mori Art Museum. A collection of his works can be seen at the Queens Museum of Art in New York (U.S.) and at the National Museum of Art in Osaka (Japan).

He was invited to as an artist in residence from the Jerusalem Center for Visual Arts, ISCP in the US, and Le Cube and Cite International 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 a video artist, curator, and writer, directed a number of enlightening and challenging exhibitions and festivals and published an insightful book under the concept of "visual philosophy".

He holds a B.A. in aesthetics and a M.A. in representation and culture from University of Tokyo.
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