I. For an Expanded Concept of the Interface

Whatever his reason for using such an imprecise term as “mind” (Gemüt) in the 34th chapter of his Critique of Practical Reason, it is surprising that Immanuel Kant decided to grant this concept so much space:

“Two things fill the mind with ever new and increasing admiration and reverence, the more often and more steadily one reflects on them: the starry heavens above me and the moral law within me. I do not need to search for them and merely conjecture them as though they were veiled in obscurity or in the transcendent region beyond my horizon; I see them before me and connect them immediately with the consciousness of my existence.”\(^1\)

Novalis would probably have found a striking poetic image to describe the tension identified by the prosaic philosopher from Königsberg, such as juxtaposing the astronomies of the inner and outer cosmos. Kant remains analytical, however, as he writes further:

“The first [i.e. “the starry heavens”] begins from the place I occupy in the external world of sense and extends the connection in which I stand into an unbounded magnitude with worlds upon worlds and systems of systems, and moreover into the unbounded times of their periodic motion, their beginning and their duration. The second [i.e. “the moral law”] begins from my invisible self, my personality, and presents me in a world which has true infinity but which can be discovered only by the understanding, and I cognize that my connection with that world (and thereby with all those visible worlds as well) is not merely contingent, as in the first case, but universal and necessary.”\(^2\)

The clash between the indeterminably large or even infinite whole and the personal affirmation of the lone individual, which could be described from a temporal perspective as the clash between Aion and Kairos, has enormous consequences:

“The first view of a countless multitude of worlds annihilates, as it were, my importance as an animal creature, which after it has been for a short time provided with vital force (one knows not how) must give back to the planet (a mere speck in the universe) the matter from which it came. The
second, on the contrary, infinitely raises my worth as an intelligence by my personality, in which the moral law reveals to me a life independent of animality and even of the whole sensible world.\[3\]

Kant’s explanation of the interrelationship between the macrocosm and the microcosm—regardless of the size and distance of the individual entities—is an ideal and intense description of the power relations that apply to every non-trivial interface. Something open, which exists in an infinite number of phenomena, encounters something finite, which is associated with the existence of an intelligent individual and his certainties.

Endo-physicist and chaos theorist Otto E. Roessler conceives of the interface in a similarly radical and expansive way, and he goes even further in emphasizing its epistemological ramifications. For him, the interface is no less than the world that we experience. An infinite number of parallel worlds lie beyond it, within which our everyday reality exists as one of countless different realities. As observers of this world, however, our perspective is divided because we simultaneously participate in it. We live in the world, yet at the same time we also step out of the world, which is obviously only possible in thought, as in science or art. We make models that allow us to observe, analyze, shape, transform, and master the world. This is precisely where the special power of technologically produced interfaces emerges.

If we use the Anglo-Saxon concept of the “interface” (something that occupies the intermediary space between faces) to anthropomorphize the relations between machines, between the components of machines, or between humans and machines, then these situations become harmonious and even downright endearing. On the other hand, the drama unfolds at a higher level than that of an encounter with the other. Moreover, “face” has the same etymological origin as “façade.” It produces trust as well as estrangement, as we generally mistrust façades. It protects the interior from the exterior and at the same time disposes of social and cultural inner worlds, such as those of a building or a fashion model.

This short introduction shows that I am pleading for an expanded concept of the interface—or, more precisely, for a concept of diversity and manifoldness. The relationships we are describing with this terminus technicus are so complex that their realities and possibilities cannot be reduced to one functional definition. Developing the idea of baroque chandeliers as archaic interfaces between the microcosm and the macrocosm from an earlier text\[4\] involves a deep temporal expansion of constellations that still concern us today. In these first tentative steps I have already come to the preliminary conclusion that to me the most familiar and therefore least obvious interfaces are also the most uncanny.

In concrete terms, I would like to work out the following constellations more precisely in the near future:

- Highly coded sociocultural interfaces like tattoos, makeup, body paint, and dueling scars. I have begun to formulate the first in the present text.

- Philosophically interpreted geophysical and geo-epistemological interfaces like G. W. F. Hegel’s Mediterranean. In the passage on the “Geographical Basis of History” in his lectures on the philosophy of history, Hegel writes that rivers and seas should be regarded as uniting rather than separating. The Mediterranean Sea, for example, is the “connecting link” between the three continents of the Old World and thus “the focus of the whole of world History,” as it is “the heart of the Old World, its conditioning and vitalising principle,” and “world history would be inconceivable without it; it would be like ancient Rome or Athens without the forum or street where all the life of the city converged.”\[5\] Because technical processes of mediation always sacrifice complexity for functionality, they generally involve standardization and unification. The force of historical interrelations thus legitimizes homogenization and produces equilibrium and eventually harmony.
Herman Sörgel took the concept of unification literally and seriously with regard to the Mediterranean, as his ATLANTROPA project in the late 1920s advocated the connection of the complementary resources, abilities, and energies of Africa and Europe. He publicized his vision, which for him had a utopian character, in an exhibition in Munich shortly before the German fascists assumed power. In this vision, the beginning of history (Africa) merged with the end of history (Europe, with Germany and Berlin at the center), as he abruptly proposed the separation of the European world from the *mare externum* or external sea. In concrete terms, this would involve the closing of the Strait of Gibraltar, the lowering of the Mediterranean, and the expansion of the northern coast of Africa and the southern coast of Europe to form a new continent called *Atlantropa*, within which the Mediterranean would actually become a wasteland that would have nothing more to do with the Atlantic or the Pacific ocean. “The cautious politicians of Europe were afraid of the sea; they only engaged in coastal shipping,” Sörgel wrote as the slogan above his introduction.\(^6\) Africa would give to Europe whatever it had in abundance, such as energy resources, and Europe would give to Africa whatever it had in abundance, such as workers and technology. His reconfiguration of the Mediterranean world from Munich was thus an imperial gesture that reflected the deep significance as well as the key qualities associated with imperialism itself as a universal, effectively regulated, balanced, and tempered form of rule. It also presented the Mediterranean, which is currently experienced above all as a mass grave for those seeking to leave Africa by sea, as a technologically controllable system for connecting and separating the north and the south.

- Theologically/religiously defined architectural interfaces like the Catholic confessional and especially the membrane that extends between the profane sinner and the priest sinner, the representative of God on Earth. These filigree panels, made out of metal or wood, not only have the absolving forgiveness of the *Ego te absolvo* projected through them millions of times in the name of the Father, and of the Son, and of the Holy Spirit, but they also accumulate the traces of millions and millions of confessions, demands for details regarding impure actions, precise descriptions of transgressions, and pronouncements of punishments.
Balance bars, like those used in ballet or pantomime studios. “Pantomime is a coherent and practical model for effective functioning…. In textbook fashion, students can manageably work with programmed steps, and a linear development takes place from exercise to exercise. The exercise bar is not merely an image of ideal straightness, towards which students are working; the geometricization of the body, which makes many beautiful effects possible, is also painful.”[7]

Neglected acoustic interfaces, like the “stand back” message from the world of public transportation, which is now announced by automated voices in most train stations.

The priest’s mechanics of complex astronomical clocks, musical automata, or calculating machines.[8]

Kinetic artistic objects like Hans Bellmer’s first doll with the dramatic peep-show mechanism in the torso.

Classical Japanese broth as the interface-staging for life and death, which comes from the depths of the sea around the Japanese coast.

Staged interfaces in public spaces, including prostitution.

II. Minimal Exemplary Case Study on the Tattoo

The cultural significance of naked bodies alternates between two extremes. At one extreme, the unclothed body becomes an image that appeals to the desiring gaze, which in painting is also called a nude. These kinds of bodies are highly stylized, coded, artificial, and programmed. At the other extreme, there is the vulnerable and violated body or the damaged and suffering body, which is not quantified statistically. These kinds of bodies can sometimes be found in technical images, such as the photographs of Russian artist Boris Mikhailov, but they are not created as picturesque or representative.
For over 200 years a third kind of naked body has emerged between these two extremes—namely, the tattooed body—which is deeply embedded in the cultures of the southern hemisphere, such as Polynesia, and has now become common around the world.

This interface phenomenon belongs to the phylum of the targeted modification of the surface of the human body, which also includes archaic interfaces like makeup, piercing, and body painting. While these interfaces are only temporarily applied to the skin, so they are easy to remove again, tattooing penetrates into the skin through a process of engraving or branding, and it thus tends to be either a traditional cultural technique, like dueling scars, or a ruling technique, like the practice of branding with a hot iron, which is familiar from slavery and livestock farming.

This already illustrates one of the important socio-semiological features of the tattoo as an interface. The tattooed acquires obligations through the permanent marking of the skin, as he or she registers imaginary data, the identification of which puts his or her own skin at stake. The interface thus becomes part of a pact. With the tattooing of a symbol or visual code that has been agreed upon by the members of a group, the tattooed reveals his affiliation to an Armenian, Italian, or Russian mafia organization; to the 'Ndrangheta, Camorra, or Cosa Nostra; to a sect, clan, or gang; to a forbidden political group that is prepared to use violence; to a secret society or, most recently, to a special occupational group, like professional soccer players. These tattooed players reveal their skin for the detailed close-ups of international television cameras in order to make the surfaces of their bodies even more attractive for the electronic image. This continues the tradition of the tattoo as a marker for some rather denigrated occupational groups, like sailors, stevedores, circus and carnival workers, migrant workers, as well as prison inmates, and it produces an increasingly paradoxical media phenomenon. These multimillionaires, who work for and before the cameras of the global media marketplace, submit voluntarily to an interface design that was originally reserved for poor population groups, who were often discriminated against socially and culturally.

The basic operations of the tattoo interface consist of “the scratching and sticking of the skin and the subsequent application of charcoal, plant extracts, ink, and similar kinds of finely dispersed substances, which are incorporated and appear as markings.” The techniques of skin marking actually became increasingly sophisticated already during the first boom of tattooing in Europe in the 19th century, and as a result they gradually became less painful for the tattooed, which now includes aristocrats and other highly privileged people. The account of Dr. J. Jaeger, a prison minister who closely examined hundreds of tattooed prisoners in the early 20th century, gives an impression of how painful the process must have been—particularly on sensitive body parts: “Inkstick, liquid ink, lampblack, ground slate, brick dust, and cinnabar are used for tattooing...[which] is usually performed by two people: the first draws, and the second engraves the drawing into the skin with three sewing needles bundled together.”

Markings for this and other recurring forms of self-punishment would seem to belong together.
The most obvious motivation for the practice of sticking the skin and coloring the resulting wounds is erotic. “[T]attooing the body is a return to animality,” Goethe noted in a simultaneously disparaging and admiring way in 1821. He had already adorned his protagonist in Wilhelm Meister’s Apprenticeship with tattoos. Like an archive, the naked surface of the tattooed body is used to present past lovers and sexual preferences, communicate with absent loved ones, or articulate desires—including religious beliefs.

As an ideal interface, the tattoo also tells stories about the dialectic of showing and hiding or exhibition and concealment. The tattooed attempts to make himself look strong through the graphic, pictorial, or textual interface branded onto his naked skin. It also reinforces his identity with respect to other individuals and institutionalized collectives. A tattooed body is a protective sheath; in extreme cases, it can even function as a form of clothing. At the same time, the messages inscribed onto the surface of the body also permit access to the inner needs, desires, and dreams of the tattooed—in so far as they can be expressed through the skin.

When taken to its extreme, this interface is thus no longer used to decorate or brand a body; rather, it uncannily transforms the surface of the body into a kind of armor. The modified body then becomes a fleshy fortress in a combat zone, which only a few are able to access and endure.

III. Sketch: Interfaces between Media-People and Media-Machines

The complex relations and interactions between “media-people” (MP) and “media-machines” (MM) involve not a single interface-reality but rather at least three—and possibly countless more.

The familiar interface between these actors (MP and MM) has been established in common thought. As users of machines, we depend on this interface; through it, we demonstrate the technical conditions of our capabilities. And machines provide this interface by showing us its face—or better, its
façade. I provisionally call this meta-interface “interface 3” (I3).

After Foucault, Lacan, Deleuze, Guattari, and Agamben, among others, we know not only that the dramatic relations between formalizable and non-formalizable (or animal and human) aspects constitute a struggle between an interior and an exterior but also that the dividing lines cut across the subjects. That applies to the human as well as the machinic actors and even more to the hybrid ensembles that consist of both, which can be called anthropo-technological subsystems.

Further interface constellations can consequently be added to the familiar I3. In a simplified model, they can be defined as follows:

Human thought and action consist of formalizable realities (calculation, discipline, control, statistics, grammar, administration, regulation, measurement, etc.) as well as non-formalizable realities (melancholy, fantasy, dream, atmosphere, desire, fear, etc.). The separations and mediations between these heterogeneous realities constantly cut across the everyday reality of the human subject. I call this “interface 1” (I1); however, it can be imagined as infinitely divisible.

Because machinic realizations of cultural, artistic, unconscious, political, and social processes consist of vast as well as sensitive material, they not only have states that can be increasingly experienced in everyday life, such as large aging machines like planes and trains or gigantic anthropo-technological subsystems like nuclear power plants; rather, they also contain a duality that consists of prescribed formal-functional parts (mechanical features like switches, buttons, keyboards, rotating elements, etc. and principles like turning, typing, pushing, contact, etc.) as well as non-formal parts (material conditions, sensitivity to temperature and climate, age, explosions, etc.). I call this “interface 2” (I2). Like I1, it can also be imagined as infinitely divisible.

The diagrammatic model can also be described as follows: at a first stage of concretization, I1 and I2 constitute the simplest interface constellations within an infinite diversity of possible constellations.

MP and MM both operate with their dualities in an open, porous structure, which allows them to exchange their constructive and destructive energies, to contact each other, and to communicate with each other through I3.

(Diagram translated by Moritz Greiner-Petter)


[2] Ibid.

[3] Ibid.


The exhibition *Dia-Logos: Ramon Llull und die kombinatorischen Künste* presented and discussed several outstanding examples, especially those from the workshop of Matthäus Hahn. See Amador Vega, Peter Weibel, and Siegfried Zielinski, *Dia-Logos: Ramon Llull's Method of Thought and Artistic Practice* (Minneapolis: University of Minnesota Press, 2019).

Cesare Lombroso formalized this criminological (and biological) tradition of delinquency for the second half of the 19th century: “One of the most singular characteristics of primitive men and those who still live in a state of nature is the frequency with which they undergo tattooing.” Cesare Lombroso, *Criminal Man*, trans. Mary Gibson and Nicole Hahn Rafter (Durham, NC: Duke University Press, 2006), 58.


Qtd. in Prinzhorn, *Bildnerei der Gefangenen*, 45.


Self-tattooing is the toughest form of branding and must be investigated separately.