



A Piece of Artificial Intelligence

Flussera Robionica (ed.)

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Foreword

Flussera Robionica

Flussera Robionica: *Katerina Krtilova, Baruch Gottlieb, Ulrich Richtmeyer.*

This book is dedicated to the media philosophy of Vilém Flusser. It is a collection of reflections based on his thinking about media and digital culture. The authors come from different countries, cultures and academic disciplines and have embarked on the daring experiment of a joint summer school in the south of France without knowing each other or the teachers and guests beforehand. What brought us together was our common interest in Flusser and certainly also our curiosity about the differences in our interpretations.

We (Baruch Gottlieb, Katerina Krtilova und Ulrich Richtmeyer) undertook the first experiment of this kind when we designated the last residence of Edith and Vilém Flusser in Robion as a meeting place for an international summer school on May 12, 2020, the 100th anniversary of the philosopher's birth. With generous funding from the German Academic Exchange Service, we wanted to bring international participants together there for a week to honor the legacy of Flusser's work at the place where it was created and to discuss its present and future validity. The coronavirus pandemic intervened and the summer school in the south of France became a digital winter school on the internet.¹

In addition to a video collection of Flusser's lectures,² this also gave us the opportunity to re-emulate two of his early media art works for digital teaching. On the one hand, his lecture experiment on hypertext conceived with the Karlsruhe Nuclear Research Center.³ And on the other, the digital version of the now highly topical book *Die Schrift. Hat schreiben Zukunft?*, which Flusser produced in 1987 as a classic book and on a floppy disk.⁴

1. See the foreword in the first summer school book "Analogue summer, digital winter and the increasing confusion of the seasons," in Flussera Robionica (ed.), *We Can No Longer Philosophize in Text as We Had Before, We Must Try It with Images*, (Den Haag: West, 2023), 7-16.

2. https://wiki.flusser.club/doku.php?id=tag:flusser_video_collection

3. <https://wiki.flusser.club/doku.php?id=hypertext>

4. <https://sites.rhizome.org/flusser-die-schrift/>

Although the digital presence of human works is convenient, it cannot replace real encounters with human beings. That is why we made the second attempt at an international summer school in May 2022 and actually came together every day for a week with participants from over 10 nations in the amphitheater located opposite the Flussers' former home. It proved to be an ideal place for teaching and learning, leaving plenty of room for didactic, methodological and media-artistic experiments. Over the course of the year, the participants then developed their projects further and at the end of the year published a joint publication in analog, digital and WiKi formats.⁵

5. Flussera Robionica (ed.), *Towards Technosophy*, (Potsdam: Postdam University of Applied Science, 2022). Digital Version: <https://opus4.kobv.de/opus4-fhpotsdam/frontdoor/index/index/docId/2955>

It was so inspiring that we planned the third summer school in Robion for 2023 and held it there for the second time. Not only did other participants come together, but the tendencies of digital culture had also dynamically changed. In addition to the classic media of drawing, writing, photography and technical images, the topic of artificial intelligence was now (again) topical and played a role in our discussions. AI is, on the one hand, a medium that needs to be fundamentally understood and, on the other, another occasion to apply Flusser's insight-provoking suggestion to play against the programs of the apparatuses if we want to continue to enjoy the possibilities and freedoms that media create for us. We grasped at these possibilities and freedoms and some of the results are condensed in this book for the summer school.

The title of this book comes from Flusser's *Die Schrift. Hat schreiben Zukunft?* It picks up on the hype around artificial intelligence and its significance for the future of media cultures. However, Flusser also shows that we cannot understand the significance of the media if we measure them only in terms of their own technical

functions. For Flusser, the contexts of the history of philosophy, culture and technology are always important, as is the willingness to compare different media and to engage in a dialog about them. This requires a linguistic form which, in Flusser's case, often produces provocative effects as he plays with etymology.

A book is, from one point of view, an intermediate stage on the way from the forest into the land of artificial intelligences. [...] But the book is also a piece of artificial intelligence, for it is an artificial support for memory consisting of bits (letters) of computed information. The book may be seen as what one must go through to get to artificial intelligences (even if this passage took a few millennia).⁶

6. Vilém Flusser, *Does Writing Have a Future?* (Minneapolis: University of Minnesota Press, 2011), 96-97.

Even the classic book is therefore a piece of artificial intelligence, because it is neither natural nor thoughtless. It is artificial like every human dialogue and every externalisation of a thought. And it becomes ever more artificial when a group of individuals thoroughly reflects on their personal as well as collective activities and brings them together in a joint work. Such a work produces the humanoid standard for an artificial intelligence that Flusser in 1987, both dreaded and intensively contemplated as a likely future.

The organizers and editors would like to thank Anne-Laure Oberson and Marta Guerrini for proofreading and editing the book. We would also like to thank Luciana Nacif, who, as last year, was responsible for the graphic design. We would also like to thank the local authority Robion, who generously provided us with the space and technical infrastructure for our summer school. A very special thanks goes to Corinne Russo, the owner of Flusser's former home, whose open-hearted hospitality contributed to a climate of encounter and exchange and

who also took on a large part of the organization.

We would like to thank the German Academic Exchange Service for once again sponsoring our International Summer School and hope that we have shown how important such activities are for international and interdisciplinary academic exchange on contemporary issues.



An editable version of this publication
is available on the FlusserWiki.
To access, just scan the QR code above.

Flusser-GPT and The Crisis of Linearity

Baruch Gottlieb

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The recent spate of developments in so-called machine learning only reaffirm Flusser's contention that causal, linear thinking will never be completely superseded in the post-historical universe of technical images, and that future philosophy will have to oscillate inside and outside the universe of technical images.

Every computational apparatus functions on mechanical linear processes, routines, loops, decision trees, which, though ramified, always proceed with historical causality towards the result. What Flusser pointed to as a "post-historical" condition of thinking through technical images, is at the same time a "most-historical" condition of myriad ramified linear processes running sequentially near the speed of light.

Flusser wavers in his writing between affirming the power of thinking through technical images "Einbildungskraft" and admitting that linear writing is still fundamental for critical thinking. Flusser's revolutionary expectation is that his readers will come to develop new cultural techniques of thinking critically through technical images, a sort of second-order criticality which integrates the legacy of mechanistic scientific thinking. This kind of thinking can only be adequate to its task of producing negentropic "new information" to the degree that it defies the program encoded in the apparatus, which is the literate legacy of linear causal thinking i.e. writing.

Writing produces causal, linear thinking in the reader, historical consciousness, a notion of private interpretation and public politics. As we enter the universe of technical images, we lose the priority to develop our own point of view and begin to "dance around events" in order to get "as many viewpoints as possible."

[...] image-makers do not think, they cannot think. Thinking is anti-image. Now they dance around [the event] and by dancing, by collecting points of view, they destroy ideology, which is the insistence on one point of view.¹

1. Vilém Flusser, "Television Image and Political Space in the Light of the Romanian Revolution," (lecture, Budapest, April 7, 1990) in Miklós Peternák et al., *We shall survive in the memory of others*, (Köln: Verlag der Buchhandlung Walther König, 2010), 24min30s.

The situation is contradictory since technical images, and electronic information are themselves products of the scientific tradition of causal historical thinking. The new ambient post-historical experiences in the new Universe still have to be understood as subtended by and dependent on causal thinking.

Flusser has a double suggestion for how to go about understanding, or challenging the logic of technical images. On one hand, he presents the apparatus as an inscrutable and impenetrable "black box" which is best understood by playing with and against it, using it for purposes it was not designed for, and heuristically, gradually identifying patterns of behaviours which will allow us to escape its program. On the other hand, Flusser suggests we may be able to reprogram the apparatus by learning the codes with which it is programmed. So while the former approach is performative, dialogical and intuitive, the latter is a continuation of literate, causal analysis and critique.

In our Flusserian analysis of LLMs and other machine learning applications which are becoming more widely used in everyday life, our challenge was first to establish that behind the apparent paradigm shift in cultural practices of communication, there persists, in the programming of the apparatus, the linear causal historical structure of thinking of the previous age. The new realm of all at once information, is thus both truly new and at the same time radically conventional.

The T of GPT stands for transformer. A transformer is a program that analyses patterns, contextual likelihoods. In other words, the transformer develops a kind of predictive map of what is likely to be in the neighbourhood of any data point. The transformers in Large Language Models study language by searching forward and backward from various words in a sentence. Comparing perspectives from various places in a text they can build very accurate models of sentence and argument formation. However, for Flusserian analysis it is important to note that the “map” of likelihoods is always traversed, or read, linearly when used for a prediction. Linearity is not transcended, only ramified.

The P in GPT stands for pre-trained. Because building an adequate model of language use requires a massive dataset of sample text as well as extensive computation of the transformer, LLM applications do not need to start from scratch if they use a pre-trained model. Here comes a lot of concerns about what goes into the model and what is left out. For example Wikipedia was one of the main language sources used to train OpenAI’s GPT. Anyone who has tried to edit Wikipedia will know that its WP:RS (Reliable Sources) rule on contributions produces a bias towards “mainstream”, in other words, corporate media interpretations of events. If we consider US corporate media an important “apparatus” we must play against using GPTs, the problem is significantly intensified by the fact that the reality reproduced by GPT is pretrained on Wikipedia. Let’s remember here that we are deeply in a world of texts, texts of articles, and emails and chats which make up the pre-training corpus, and texts of the prompts by which we call a GPT to generate a response.

The linear nature of the programming responsible for the

2. James Dobson, "Diving into Deep Learning: On Reading and Interpreting Black Boxes," in *International Journal of Digital Humanities*, 2021. Available at Research Square <https://doi.org/10.21203/rs.3.rs-2643580/v1>

impressive GPT LLM results confirms that it is a machine like any other, and that the culture objects it produces are the result of an industrial process. In this sense, GPT is not different from a platform like Facebook: it matters who owns the industrial "dispositif" which avails all of us of this service. For example, a paper on GPT2 states that results are censored so as not to allow GPT to generate incitements to violent action.² 4 categories of dangerous incitement were identified: white supremacist, islamic fundamentalist, anarchist and socialist. Striking is that fascist texts do not seem to be a problem for OpenAI. Through experimental prompting, it is clear that there is an anti-communist tendency in this filtering.

The results of LLMs are multiply constrained, first by the content of the large dataset used to pretrain the model, and finally by a kind of editorial filtering which is imposed to protect society from some of the potential damage unleashed by the technology. Whereas dangerous materials may be purchased under legally enforced restrictions, increasingly we have a situation where the tools we use are programmatically prevented from being used in various ways. This is not just the case with LLMs, which also include rather puritanical limits on sexuality and eroticism, but increasingly with other software and even hardware, which monitor users and arrest behaviours designated as inappropriate, such as cars, which attempt to prevent owners from driving while intoxicated.

When law is encoded directly into the software, we are not talking about post-linearity in any kind of operative way. But the way the law is produced, though, in principle, through the process of rational linear arguments, is, in practice, an exercise of arbitrary power and force. As before, linearity, the mechanism, is simply a tool to augment the exercise of power of an individual or group.

So we will have built-in AI copyright enforcement, morality enforcement, and policing which serves to repress and constrain behaviours considered undesirable. Certainly this will produce sub-cultures which resist this control but these are always overdetermined by the logic of control and cannot produce radically alternative outcomes (Audre Lorde's Master's tools etc.).

Flusser implied with his suggestion to treat the apparatus like a black box, that it doesn't really matter how the apparatus works as much as it matters who owns and controls it. Any apparatus can be used for good or ill, what determines the real outcome is a complex set of social checks and balances, prevailed over by the rich and powerful. As Taoism teaches, a decision does not necessarily follow from the preceding deliberation, for it is always an arbitrary decision to stop deliberating and decide. So linear and rational argument has always only ever been part of the story of modernity. Rationality has unleashed enormous potential in automated systems and machines, but human beings' ability to determine the kind of society they live in has generally been subject to the needs of the wealthy. Only in the socialist vision, where the ruling class is itself a council of councils ramifying upward from the productive forces at the bottom of the apparatus reproduction chain, could the wantonness of the wealthy be subordinated to the needs of the great majority.

My friend Dmytri Kleiner likes to say, "Capitalism is too stupid for AI." AI at best reveals to us what we are, but corporate filtering prevents us from benefiting from the oracular power. Only under a scientific regime, where reality must be encountered in all its difficulty, not only through experts but by the population in general, will the emancipatory power of the revelations of AI be emancipated to produce other social consciousnesses

and prospects. Under Capitalism, AI will only serve to exacerbate already existing injustice. Only under socialism will AI be emancipated to radically improve the lives of the generality.

Flusser was a Marxist as a youth. His parents and Edith's were part of a Marxist intellectual circle in Prague. Marx, beyond his revolutionary advocacy, was considered an important thinker to read in order to understand the world. Flusser rejected Marxism after his exodus from Prague but never completely abandoned Marx, his writing remaining paradigmatic for a linear, causal, historical analysis of the world, which, according to his theory, is encoded into the functioning of the apparatus. So whereas technical images can produce new situations, they still dialectically are consigned to historical flows. When the socialist projects in Eastern Europe began to collapse in 1989, Flusser was cautious and even ominous about the prospects:

To say that, of course, no doubt, that the apparatus of the communist party was a terribly oppressive apparatus. And those who fought it by working against, those metaphorical photographers [...] used the apparatus to play against the apparatus. But now that the apparatus was destroyed, chaotic situations menace us.³

3. Vilém Flusser, "On technical images, chance, consciousness and the individual," (interview by Miklós Peternák in München, October 17, 1991) in Miklós Peternák et al., *We shall survive in the memory of others*, 38min17s.

From the threat of this chaos, Flusser returns, in his later writings and interviews, to studies of intersubjectivity from his youth: Buber, Husserl, and the Talmud. In an interview with Miklos Peternak and Laszlo Beke in 1991, he frames prehistory as Jewish and history as Christian, which implies that post-history would be a return of resonant, oral-culture Jewish dialogical forms of thinking. But this apparent re-socratic turn, to a world of spoken, intersubjective philosophy is now subtended by the legacy of historical linear writing in the digital

apparatus which affords this in radically new ways. Flusser dares to sketch out a scenario, which today sounds like a teleconference, where interlocutors are connected through the experience of God in the other. But again this is not merely the “only permitted image of God” as it was in antiquity but a synthetic image of God criticised from within by the programming of the apparatus which provides it.

...the only way I can imagine God is to look at the other person. This is to say that only through the love of my neighbour can I love God. [...]the [...] only permitted image [...] is the face of the other . But, the synthetic image – computer-image - is the other person. Because through the computer-image, I can talk to the other person: he sends me his image, I work on it and send it back to him – so this is the Jewish image. This is not an idol. This is not paganism. It is a way to love my neighbour, and by loving my neighbour, to love God. So I am not a good Talmudist, but I would say that from a Talmudic point of view, the synthetic computer-image is perfectly Jewish.⁴

4. Vilém Flusser, “On religion, memory and synthetic image,” (interview by László Beke and Miklós Peternák in Budapest, April 7, 1990) in Miklós Peternák et al., *We shall survive in the memory of others*, 13min30s.

Facing the other through the linear/causal mesh of scientific analysis is, for Flusser, the messianic apotheosis, result, super-resolution of the original sin. The abstracting sin of literacy has been overcome through the synthesising technical image. Now we analyse each other while we interact with each other intuitively. The analysis is a given, it is subliminal, infrastructural, engineered into the experience, We need not be critical ourselves in the sense that we must step out of the situation to observe and analyse because that whole process is supersaturated in the texture of the image of the other we are interacting with. Rather we may dedicate our critical faculties to informing the other, or better, generating unlikely information with the other.

However, missing from this messianic return is a critique of the material ownership of the apparatus on which all this divine activity is to take place. This is not the intersubjectivity which takes place on common ground, unmediated between two humans. The radical synthesis of rationality and intuition in the technical image depends on the industrial apparatus brought forth by the global electronics production chain, with all its legacy of imperialism, colonialism, and entailing white supremacy, racism, misogyny, etc.

Flusser always assumes equal agency of all parties, and so does not entertain the possibility that some may have a harder time accessing, enjoying or taking full advantage of the telematic world which is emerging. It is one thing to criticise the rational, causal, historical alphanumeric code which runs inside all computerised affordances using rational arguments, it is quite another to challenge the power structures which ensure when and how the apparatus is reproduced in order to run its programs, a realm beyond rational critique, where all possible rational critique is subordinated to the purposes of those who prevail.

Can Artificial Intelligence Procrastinate?

On The Uncertain Future
of Unfinished Texts

Ulrich Richtmeyer

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“The greeting of philosophers
to one another should be: Take your time!”

Ludwig Wittgenstein

(On the 75th anniversary of this aphorism.)

Writing as a process

Writing takes time. However, the time I need to complete a text does not only consist of the writing itself. It would therefore be wrong to describe the active and passive phases together as working time. Sometimes it simply takes longer because I can't concentrate on the matter at hand. There's far too much to distract me. News about the world's disasters, for example, or about popular scientific findings that are sometimes catastrophic. I hear that the human attention span has fallen below that of a goldfish and forget about my topic. Other times, the topic I have chosen seems far too meaningless. Most of the time, however, I have recurring doubts about the right choice of words and their meaning when writing. Although this sounds like a lot of indecision, the delay is often good and useful for my writing. And since Descartes, methodical doubt should be a matter of course for philosophical work anyway. In its *Guidelines for Safeguarding Good Research Practice*, the German Research Foundation also recommends “rigorously questioning all findings.”¹ Apart from delays, this approach also creates a problem of differentiation. Is it not necessary to separate methodological doubt from merely psychologically induced doubt? Ultimately, however, every doubt, even the psychologically induced one, will have been a methodological one if it can be

1. “Guidelines for safeguarding good research practice. Code of conduct,” (Bonn: Deutsche Forschungsgemeinschaft, September 15, 2019), 9, <https://doi.org/10.5281/zenodo.3923602>. The German version uses the expression “zweifeln” (doubting) and recommends “alle Ergebnisse konsequent selbst anzuzweifeln” (consistently doubting all results yourself).

established in retrospect that the delay that occurred led the work to a better result. Seen in this light, some delays could be explained retrospectively as writing time that was originally perceived as a disruption, failure or inability.

In a narrow understanding of the word, writing only refers to a thoughtless, automated, almost technical operation in various routines. Automated technical operations know no doubt and manage without its delays. When I use writing tools to produce writing, such as pen and paper or keyboard and text file, I usually do not reflect on the technical dimension of my actions, but simply function in their sense. If all writing were to be just such a technical combination of letters (words, sentences and ideas), it could be safely delegated to artificial intelligence, as Flusser already stated in his prophetic book *Die Schrift. Hat Schreiben Zukunft?*: “The ordering of ideas is a mechanical process, attributable in any case to the order of writing, and can be left to artificial intelligences.”²

2. Vilém Flusser, *Does Writing Have a Future?*, (Minneapolis: University of Minnesota Press, 2011), 92.

However, this is obviously a very shortened understanding of the cultural technique of writing. Because when literate people write routinely, their actions are also based on the entire individual and cultural history of that medial self-optimization in which thinking has adapted to the use of writing instruments. Decisions on word choice, sentence structure, expression and grammar can therefore be made at the same time as the technical process. However, the intellectual activity itself is not part of an instrumental or apparatusive process. Both aspects of writing have only been synchronised, but not synthesised, through many years of individual training, usually acquired during school. This can also be seen from the fact that the technical component of the process could usually be carried out much faster, especially if it

3. This is a special case of thoughtless writing and also a misleading expression, because the loss of control is brought about by a conscious decision, which is a prerequisite for staging the writing technique as one that appears to operate automatically. But this is only as automatic as Kempelen's chess machine.

4. Vilém Flusser, *Does Writing Have a Future?*, 17. The first sentence has been retranslated so that it corresponds more closely to the German original: "Eine Frage der Technik ist aber nie eine nur technische Frage."

5. Ludwig Wittgenstein, "Vermischte Bemerkungen" in *Werkausgabe*, Band 8, (Frankfurt: Suhrkamp, 1984), 560. "Ich schreibe beinahe immer Selbstgespräche mit mir selbst. Sachen, die ich mir unter vier Augen sage." Translated from German by the author.

dispenses with mental order, as is the case with *écriture automatique*.³ But if the writing is to have any meaning, it cannot be separated from the linguistic decisions and mental activities that intellectually control the technical process of writing and thus always slow it down. The more demanding the text and the expected readership, the more time is needed for the linguistic decisions.

In a broad understanding of the word, writing thus encompasses much more than the automatable technical routines. And Flusser also knew this when he was writing: "But a question of technology is never just a technical question. There is a complex feedback loop between technology and the people who use it. A changing consciousness calls for a changing technology, and a changing technology changes consciousness."⁴ The complex feedback loops between people who write and their technique also include the quality-enhancing, recursive processes that consist of reading what they have written themselves and the self-talk with which it is evaluated. In important texts, every single word is often questioned and is tested and varied in thought, sound and written image, in a sense in quiet, loud and clear self-talk. Wittgenstein's confession "I almost always write soliloquies with myself. Things I say to myself in private."⁵ can certainly be confirmed by many authors. Only with the publication of the writing is this process temporarily ended. And the quality of the preceding soliloquy (and other quality-enhancing dialogues) can be judged by its final form. However, a differentiated assessment of the time required for writing is far more difficult.

Individual procrastination

I am an alphabetised human being, not a machine. So I am torturing myself through this text, full of doubt and

hoping for happiness. Nevertheless, I have no egocentric or existentialist motive. Rather, I want to reflect on the delays in writing because I believe that they provide a suitable criterion for distinguishing humanoid writing from that of artificial intelligences. To do this, I need to clarify which delays are essential for humanoid writing.

For some forms of writing, this is quite simple, for example where the delay is meaningful. Writing games such as Scrabble, which has just turned 75, or the numerous forms of crossword puzzles are among them. Because the purpose of writing is not the meaning of what is written, they cannot be replaced by AI instances capable of writing.

In Scrabble, the use of artificial intelligence would perhaps still be justified if it was aimed at tricking the other players. In the long term, however, the quickly generated solutions would destroy the sense of achievement that can be achieved through play and perhaps even your own language skills. In crossword puzzles, the importance of delay is even more obvious. You defeat the purpose of the game if you play it with artificial intelligence. The difficulties in finding the right word, the productive connection between personal language memory and the combinatorial clues that emerge from letters that have already been correctly placed, are the real reason for writing and make its delay significant, even though what is written is highly trivial.

Since Chat GPT 3 was published in November 2022, there have been intense discussions about the performance of write-enabled artificial intelligences, mostly focusing on the quality of the texts and the impressive speed with which they are created. With my question as to whether artificial intelligence can procrastinate, I would like to fundamentally shift this focus. I want to move away from

evaluating the results of writing towards the complex process of their creation. This involves a phenomenon that has long been observed in the field of artificial intelligence. While we ask what it is and what it can do, we quickly forget that these questions have not yet been answered authoritatively for either human intelligence or human writing. However, when making comparisons, it is good to know what exactly is being compared.

There are descriptions of the genesis of AI-generated texts that are understandable even for amateurs. I am not so much interested in the technical process as a functional sequence, but in the writing time required, especially where its functional and dysfunctional effects on the text are still unclear. This is what is meant by the term procrastination, which I fortunately only became acquainted with after successfully completing my academic qualification papers. In other words: I'm no expert at procrastinating, but I come across it often. When students can't meet deadlines for assignments, they use this word, often with slight self-irony and as a matter of course. It refers to a complex delay in writing that is always perceived as a problem and certainly felt as such. By those who suffer it and by those who observe it. But which part of the suffering stems from the social constraints of our restless present and which part is genuinely part of writing?

6. Ludwig Wittgenstein, "Vermischte Bemerkungen" in *Werkausgabe*, Band 8, (Frankfurt: Suhrkamp, 1984), 561. "Der Gruß der Philosophen unter einander sollte sein: Laß Dir Zeit!" Translated from German by the author.

7. The English translation was published as Ludwig Wittgenstein, *Culture and Value*, Georg Henrik von Wright (ed.), (Chicago, University of Chicago Press), 1980.

In 1949 at the latest, Wittgenstein wrote in one of his notebooks: "The greeting of philosophers to one another should be: Take your time!"⁶ Georg Henrik von Wright selected this aphorism from Wittgenstein's manuscripts in 1965 and published it posthumously in 1977 in the book *Vermischte Bemerkungen*⁷ - 28 years after the notebook version. The sentence struck me during an intensive reading of Wittgenstein in 2008. I am glad that it suddenly occurred to me again between the 5th

and 6th file version of this text, because it pleads for the delay in thinking and writing that is to be reflected here. After 75 years, I send my sympathetic greetings, but also realise that Wittgenstein was addressing his recommendation to a very exclusive group of people in which written language content may be more important than deadlines.

Wittgenstein took his time when writing. Over many decades, he entered handwritten sentences in notebooks, read them later, corrected them, varied them or crossed them out and transferred some of them to new notebooks. Some of them were reproduced on typewritten pages, where they were then cut out, annotated by hand, rearranged and collected in thematic groups. Some collections of text snippets, such as the Big Typescript, were published posthumously as books in their unfinished form. Did Wittgenstein constantly procrastinate? Which periods and phases of his life were useful for the production of his writings and which were not?

Since the introduction of Personal Computers, the intentional cutting out, shifting and rearranging of sentences and text passages as well as the creation of text variations have become part of the writing process in digital culture. It's not so different from what Wittgenstein practised between handwriting and typescript with scissors and glue. Technical convenience has increased significantly, but the written language operations themselves have actually remained the same. Of course, their technically afforded dissemination has had an impact on the entire culture of writing, insofar as the PC now makes the previously philosophically detailed writing and the spectrum of assembly techniques used in it available to all writers. The computer has made the quality-enhancing delays consisting of correction,

variation, montage etc. more convenient and has also accelerated each of these individually. However, since more techniques can be used overall, there are also new reasons for delays of all kinds. Both helpful and annoying.

For every important text, I now create a series of file variants that need to be read and in which the appropriate deletion of versions is particularly time-consuming. Such active delays in writing are well known to editors because they enable their professional writing criticism. However, there are also passive delays in writing, which can be caused, for example, by lack of concentration, loss of motivation, lack of time, laziness or so-called writer's block.

Beyond this clear dichotomy of active and passive, however, there are also passive delays in writing, which in turn have a beneficial effect on the active and therefore ultimately also on the quality of the text. For example: fundamental doubt or doing nothing. For people, the useless breaks can be performance-enhancing and the time spent idle can make the results of the subsequent work more substantial. Every break won by a trade union, every annual vacation and every seventh day of the week defined as work-free due to religious traditions testify to the principle of performance-enhancing idleness. This is expressed in the neighbouring sentence of Wittgenstein's aphorism quoted above: "The Sabbath is not simply a time for rest and relaxation. We should look at our work from the outside, not just from the inside."⁸

8. Ludwig Wittgenstein, "Vermischte Bemerkungen", 561. "Der Sabbath ist nicht einfach die Zeit der Ruhe, der Erholung. Wir sollten unsere Arbeit von außen betrachten, nicht nur von innen."

Even write-capable artificial intelligences do not generate their texts immediately, but in many successive steps that involve elliptical and recursive movements and serve to increase quality overall. Because they are computers, they think nothing of it and act ultra-

fast, so that we do not notice these functional delays in writing. Passive delays in writing only occur here due to technical dysfunctions such as a power failure or unreliable connectivity with the Internet. They do not have a positive effect on the quality of the resulting text because artificial intelligence cannot “view its work from the outside, only from the inside.”

Unfinished texts in dialogue

People can view texts from the outside when they read and evaluate them. The view from the outside is always already integrated into human writing, because it is in constant interaction with reading, which is not necessarily a time of rest, but certainly leads to the deceleration of writing. For as soon as reading no longer focuses solely on the visual control of the technical aspects of writing, but on the meaning of what is written, delays occur. Flusser has given a solid explanation for these quality-enhancing delays in writing, making them somewhat clearer and more accessible. In his book on writing, he assumes that all texts are actually “Halbfabrikate,”⁹ i.e. permanently unfinished, because writing has a dialogical function: “Literature (the universe of texts) is half finished. It seeks completion. Literature is directed toward a receiver, from whom it demands completion. The writer weaves threads that are to be picked up by the receiver to be woven in. Only then does the text achieve a meaning. A text has as many meanings as it has readers.”¹⁰

9. The German original of the following quote uses this noun instead of the English expression half finished: “Die Literatur (das Universum der Texte) ist ein Halbfabrikat.”

10. Vilém Flusser, *Does Writing Have a Future?*, 37.

If we follow Flusser, then this basic dialogical structure of the medium gives rise to a permanent delay that is indispensable for the final quality of every text. A text is only finished when a reader gives it meaning. The dialogical process that takes place between authors, publishers, editors and all other readers is therefore a

creative co-production between literate people that produces all the relevant qualities of the text. "True, good, and beautiful texts, that is, concise texts that flow without interruption and are nevertheless contradictory, are works of a creative dialogue between the writer and the publisher."¹¹

11. *Ibid.*, 44-45.

In the inner dialogue that writers have with themselves and their texts, future readers are also imagined, their possible objections and questions anticipated and, above all, their approval is anticipated. The internal dialogue is over when authors recognize a meaning in the reading of their own text. They may have to resume this conversation if other readers suggest a different meaning for the text.

Throughout the evolution of writing instruments, devices, materials and writing techniques, this basic dialogical structure of human writing has not changed. Neither the goose quill nor the typewriter nor the computer. Will this change if artificial intelligence capable of writing is integrated into this dialogical structure in the future? Isn't every human query to Chat GPT, for example, already a hopeful outstretching of the arms that attempts to enter into a dialogue with the computing machine and expects an answer from it?

Texts are half finished. Their signs rush toward an end point but past this toward a reader who, they hope, will complete them. It makes no difference whether the writer is aware of it, or even whether, like Kafka, he expressly rejects a completing reader; texts are a search for the Other. Of course, it is possible to divide up the universe of texts according to various criteria, but all texts are outstretched arms trying, whether optimistically or in despair, to be taken up by another. This is what the gesture of writing is disposed to do.¹²

12. *Ibid.*, 39-40.

Characteristic aspects of writing, such as dialogic expectations and the unfinished nature of the texts, can also be found in the interaction with writing AIs. All of the first reports of experiences with the new possibilities of artificial writing since the end of 2022 emphasise how quickly, comprehensively or profoundly the answers were corrected. The interaction between human and writing machine seems to continue a dialogue that serves the good text and continues to fix this semi-finished product in an environment of quality-oriented hesitation.

The possibility of dialogic post-editing of texts is even becoming a new expert knowledge, which is a popular example of the responsive functionality and almost inexhaustible inventiveness of the machine dialogue partner in lectures and workshops. So does anything change in the dialogic structure of writing if the unfinished text is produced by a machine at the request of a human? Is the quality-enhancing dialogue with the machine not even much better conducted as a soliloquy?

Not for Flusser. Because when writing is done for apparatuses, he constantly calls it programming. Here, writers no longer address their notes to people, but to machines. "For this reason, programming cannot actually be called writing. It is a gesture that expresses a different kind of thought."¹³ I will leave aside the question of whether writers succumb to the autosuggestion that they are actually interacting with a human-like being. What is more important is that, according to Flusser, programs are instructions for use and thus elude the dialogical structure of writing.

13. *Ibid.*, 58.

To whom are these people writing? For they are not writing past a conclusion to another human being. Rather they write with and for apparatuses. Didn't the

earlier discussion show that writing to other people was the essential thing about writing? So the essence of writing has changed for these people; it is another writing, in need of another name: programming.¹⁴

14. *Ibid.*, 55.

It could therefore be that the dialogical element disappears from writing. It could be that the use of artificial intelligence changes our writing in such a way that we primarily use writing functionally and monologically. We will no longer tend to have conversations, but expect convincing answers that program us, i.e. tell us what we should do and what we can think.

However, the idea that an AI-generated text is good, so far presupposes at least one reading human who has this impression. If AI often produces texts that give many people this impression, dialogical relationships with texts could be discontinued in the long term.

The previous relationship to text, which not only connects people, but also the operations of writing and reading dialogically, would break down into separate parts. On the one hand, into post-dialogical writing for machines, which Flusser calls programming and is reserved for those experts who create operating instructions and programs and will be called prompt engineers in the future. And on the other hand, a post-dialogical reading of machine texts that does not yet have a name, but which, at the latest when it has lost the last reference to dialogically complementary writing, is actually a becoming-programmed that consists of the mere acceptance and acceptance of machine-generated textual instructions for use. The current discussion about the future significance of writing-capable artificial intelligences is therefore misguided if it focuses on the quality of the texts. What is decisive, however, is the behaviour of literate people, in particular the question

of how they will conduct their dialogues via the semi-finished product text in the future.

The fate of writing in the age of writing-capable artificial intelligences will therefore not be decided by the question of how quickly, well or meaningfully machines can produce texts and whether they can do this better than people who have been writing up to now. Rather, the fate of writing will be decided by the question of whether reading will still be dialogically linked to writing in the future. A positive indicator of this are texts that circulate as semi-finished products between addressees and addressees, and are subjected to sceptical criticism, which repeatedly provides the text with its meanings. A negative indicator is our willingness to let machines tell us what we have to do, which route is the shortest, which food tastes best, which surgical incision has to be made first and which strategy is sure to win the next war.

Conclusion

The end of procrastination is the end of the text. But I hope that the ambiguity of this sentence will remain readable in the future: when I stop procrastinating, my text is finished. When writing can no longer be delayed, there will be no more texts.

The Gesture of Film Editing

Varvara Šatunova

Varvara Šatunova is a film editor based in Prague, Czech Republic. After graduating in Film Studies from Masaryk University, Brno, she was accepted to FAMU film school in Prague and graduated there in 2023. Currently, she works as a full-time film editor and teaches film editing at the film school Prague Film Institute. As an editor, she worked on the short documentary *Jsme epicentry zemětřesení* (2020), and two feature documentary films *Bydlet proti všem* (2021) and *Jiříkovo vidění* (2023).

In addition to providing his own perspective on the art and craft of film editing in his book *In the Blink of an Eye*, Walter Murch briefly summarises the development of the editing and cutting machines themselves and describes the origins of the profession as follows: “in the first quarter of the twentieth century, the film editor’s room was a quiet place, equipped only with a rewind bench, a pair of scissors, a magnifying glass, and the knowledge that the distance from the tip of one’s nose to the fingers of the outstretched hand represented about three seconds.”¹

1. Walter Murch, *In the Blink of an Eye*, (Los Angeles: Silman-James Press, 2021), 75.

2. An example of such software is Runway (automatic masking, subtitling, rhythm detection, audio noise removal, <https://runwayml.com/>

3. For example, PluralEyes, <https://www.maxon.net/en/red-giant/pluraleyes>

4. For example, Descript software, which automatically transcribes dialogue in video into text form and allows editing of video based on text editing, <https://www.descript.com/video-editing>, or AI Speech-to-Text Transcription which can already be found in Davinci Resolve 18.5 editing software, <https://www.blackmagicdesign.com/products/davinciresolve/whatsnew>

Although even today we can imagine the cutting room as a place where precise and focused work is performed, scissors and magnifying glasses can only be found as mere pictograms denoting the specific functions of contemporary cutting software. If we look at the evolution of film apparatuses in general and how they have been transformed, above all, by the era of digitalisation and the development of computer systems and technologies, it can be argued that it is the editing rooms that have undergone (and are still undergoing) one of the most significant transformations. If the first editing rooms looked like a workbench with a pair of scissors on them, today we are instead in an era of non-linear editing systems characterised by a high degree of automation and the use of machine learning, for example in masking or subtitling,² automatic synchronisation of material,³ or automatic transcription of spoken dialogue into text form.⁴

Ordinary viewers, who usually encounter finished film works on cinema screens or on television or computer

screens, would probably hardly identify the editing processes behind the production of these films from their structure or the narrative methods. In other words, the average viewer is unlikely to be able to determine whether a given film was cut on a flatbed - a horizontal editing machine (e.g., Steebeck or K.E.M. systems), with the help of a Moviola, Betacam, CMX system, or using digital systems such as Avid Media Composer, Davinci Resolve, Adobe Premiere Pro or Final Cut. However, for film professionals who are actively involved in the post-production phase, the transition from mechanical editing suites to dynamically developing digital systems represents not only a fundamental change in conventional filmmaking practice but also in how film material is perceived as such. Therefore, we can speak of different ways of seeing film as a medium in this context.

As Martin Lefebvre and Marc Furstenau point out, the film has a coherent linear form in the cinema. It presents a compact experience on the big screen, which is not typically interrupted in any way. In the film editing room, the opposite is true; not only is the editor free to rewind individual shots in any order and in any way they like (e.g., fast-forward, rewind, pause the shot at any time, or watch the scene frame by frame), but they are also looking at the material through a small preview window or screen.⁵

What's more, we have to consider not only the fact that editors may look at film differently but also the very architecture of their working environment, which is largely defined by the shape of their editing apparatus. Whereas the horizontal cutting table required the editor to primarily sit on a chair, rewind individual rolls of film using several film reels, and operate the machine using manual levers or pedals under the table,⁶ the Moviola,

5. Martin Lefebvre and Marc Furstenau, "Digital Editing And Montage: The Vanishing Celluloid And Beyond," in *Cinémas / Revue D'études Cinématographiques* 13, no. 1-2 (2002): 69–107, <https://www.erudit.org/fr/revues/cine/2002-v13-n1-2-cine616/007957ar/>

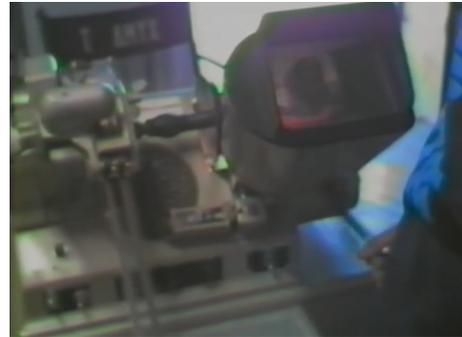
6. See video demonstrations explaining how to use the Steenbeck cutting table. Dawn Trotman and Oliver White, "Editing 16mm film for television," *How Television Used to be Made*, ADAPT: Researching the history of television production technology, <https://www.adaptvhistory.org.uk/16mm/editing/>

7. Tim Amyx and Julie Dole, Editing Room of "Nightlight" aka "Slumber Party Massacre III," 1990, amyxvideo YouTube channel, <https://youtu.be/erZSLrLm2i8>

Fig. 1 & 2: Moviola.

8. Semiotics is crucial for Flusser, as he derives his knowledge and ontology from it. See, for example, his argument in which he draws a distinction between the classical painted image and

for example, operated on somewhat different principles. Although this editing machine was also operated with pedals and levers, it was a set of massive vertical machines that had to be operated standing up, the editor generally moved around the room more and used a different way of organising the material.⁷ The advent of digital systems was a real breakthrough in this respect, as it automated many tasks that previously had to be done manually, greatly accelerated the production of film works, and again significantly transformed not only how film material was organised but also how film was perceived.



the technical image. "The technical image is an image produced by apparatuses. As apparatuses themselves are the products of applied scientific texts, in the case of technical images one is dealing with the indirect products of scientific texts. This gives them, historically and ontologically, a position that is different from that of traditional images. Historically, traditional

Vilém Flusser on Apparatuses and The Gesture of Filming

Vilém Flusser's thinking is related to one of the theories of representation, where he works mainly with symbols and signs, thus building on the findings of semiotics⁸ and the notion of the apparatus as a certain ideological concept (i.e. an apparatus that represents a certain idea). It is therefore typical for Flusser to apply the notion of apparatus not only to individual machines but to understand them as carriers of a certain program, i.e.

images precede texts by millennia and technical ones follow on after very advanced texts. Ontologically, traditional images are abstractions of the first order insofar as they abstract from the concrete world while technical images are abstractions of the third order: They abstract from texts which abstract from traditional images which themselves abstract from the concrete world." Vilém Flusser, *Towards a Philosophy of Photography* (London: Reaktion Books, 2000), 14. Flusser also refers to semiotics on all three of their levels - semantic, syntactic and pragmatic. For example, he understands words as phenomena that always represent concrete meanings (semantic level), he understands language or code as a system of symbols (syntactic level), and he understands language in its cultural and historical context.

9. Flusser, *Towards a Philosophy of Photography*, 29-30.

10. *Ibid.*, 19.

11. Vilém Flusser, *Into The Universe of Technical Images*, (Minneapolis, London: University of Minnesota Press, 2011), 4.

a code that produces images.⁹ The concept of code is a crucial aspect of Flusser's thought. For him, the code is a system of symbols that act on our society through programs and thus shapes it. At the same time, code is identified with language in general, as Flusser claims that they are both "systems of symbols." Since Flusser's expression combines elements of technical reasoning and poetic metaphoricity, the notion of "code" and the process of programming must also be seen in a figurative sense, i.e. as a kind of metaphor for contemporary cultural and social order. The apparatus here therefore plays an important role as a kind of symbol of the modern epoch, which according to Flusser is defined by the domination of technical images (i.e. symbols of scientific concepts, equations and configurations) which these apparatuses produce.¹⁰

Given that complex technologies are an integral part of our contemporary culture and everyday life, the question for Flusser is what conditions of existence this state of postmodern society, with its emerging technologies and associated practices, offers us. In his essay *Into the Universe of Technical Images*, Flusser outlines two possible utopian scenarios for the future development of our society. Either society becomes fully totalised as a community composed of functionaries and passive recipients of technical images, or it moves towards a so-called telematic society, i.e. a community of image creators based on dialogue.¹¹

This way of arguing and creating utopian and dystopian visions of how society works offers Flusser a unique opportunity to notice the inconsistencies and tensions in contemporary Western thought. Hence, Flusser comes up with the suggestion of the "game against the apparatus" as a tool to resolve the dilemma between the seemingly infinite possibilities to freely decide

12. "Everywhere we can observe how apparatuses of all kinds are beginning to program our lives in dull automation; how human labour is being transferred to automata, and how the majority of society is beginning to be occupied in the 'tertiary sector' by playing with empty symbols: how existential interest is being turned from the world of things to the universe of symbols, and how values are being transferred from things to information. How our thoughts, feelings, desires and actions become robotic: how "living" means programming apparatuses and being programmed by them." Flusser, *Into the Universe of Technical Images*, 68.

13. He argues that manipulating the camera is not a sufficient gesture of filming for him, as it is rather an extension of the photographic gesture. The other professions that are also involved in the creation of something as complex as motion pictures (e.g. producers, writers, directors, assistants, sound engineers, etc.) are not considered by Flusser at all. Vilém Flusser, "The Gesture of Filming," in *Gestures*, (Minneapolis, London: University of Minnesota Press, 2014), 87-88.

14. *Ibid.*, 89.

and create within the newly created technologies and the above described state of thinking determined by these very technologies.¹² At the same time, I believe that Flusser's ambitious and utopian metaphors should not be understood literally, i.e. as universal keys to understanding the social situation we are currently in, because these metaphors are at most abstracted and simplified ideas for which he does not offer a more complex methodological anchor. Flusser's thoughts can thus be understood as not so much about constructing a perfectly argued philosophical system as about creating a certain poetic gesture that is meant to lead us to a new way of seeing our social and cultural situation.

It is the gesture that constitutes the second, "phenomenological" level of his argument, for in the very gesture of "playing against the apparatus" Flusser sees a specific practice through which we can reflect on the cultural, material, social, historical or media conditions of our existence. In his essay "The Gesture of Filming," Flusser places the gesture of editing prominently in the foreground and considers it an "actual filming gesture."¹³ For him, editing is a process in which we have the freedom to combine shots in such a way as to produce both simple linear stories and films that "play against the apparatus" and combine individual phenomena in an order that no one has ever seen or experienced before. "He [the filmmaker] therefore can make history not only in the second sense but also in the first, not only to recount what has happened (possibly and really) but also to bring events about (as *trompe l'oeil* on a cave wall, of course)."¹⁴

Dimensions of the Editing Gesture

Film editing is therefore an essential gesture and a media practice that allows us to explore our ways of

seeing, our ways of narrating, and the principles of visual language, which can also be explored from a semiotic point of view. All the more so, editing is not just a simple gesture of joining two shots together, but instead a highly complex gesture of separating and composing, analysing, layering, narrating, dramaturging, reception and communicating with each other (even often using diplomatic skills). However, I find it necessary to mention that the gesture of editing is not only present in the editing room but is present in all steps of filmmaking, i.e. it starts already at the time when the theme and the script are being developed, and it continues through the shooting process itself, ending in the picture and sound editing rooms, which is the last stage of the search for the meaning of the whole thing and where all the meanings contained in the film work are maximised.

15. What Flusser is communicating is that gestures do not always represent clearly defined meanings, i.e., even if we list all the causes of a given gesture, we will always find a gesture for which this enumeration will not suffice. In this remark, we can also assume a certain dichotomy between code and gesture, which Flusser here establishes. As we have already seen above, Flusser assumes that code always represents a precise meaning, i.e., a causal scientific explanation is present. In contrast, this way of thinking cannot be applied to gestures with absolute validity. Vilém Flusser, *Gestures*, 2.

But the question remains, what is actually meant by this “gesture” in Flusser’s philosophy and how should we understand it? His definition of gesture is very broad, and his thinking repetitive, as in his conception of code. It is certain, however, that Vilém Flusser sees gestures as particular symbolic movements of the body or of tools associated with the body. While they aim to express or communicate something, at the same time there is no satisfactory causal explanation for these movements.¹⁵ Compared to his semiotic approach to language, gesture suddenly appears as something that transcends classical semiotics, since it does not only take place at the level of rational thinking but also includes an emotional and physical dimension. Nevertheless, Flusser’s thought still tends strongly towards symbolic structures and language itself, which turns out to be the primary key to reading his reflections. In other words, in his conception of gesture, Flusser seems to come to the very edge of semiotics and tries to grasp what he finds there.

Another point is that Flusser unquestioningly equates the gesture of filming with the gesture of editing. As if editing were the essence of the film, which conditions its existence. However, in that respect, I think editing is only one of many gestures as “symbolic movements” that are ultimately present not only in film but in other media practices.¹⁶ Although Flusser’s essay “The Gesture of Filming” perceives filmmaking as simultaneously a gesture of divine act of creating metahistories, it is curious that he does not perceive this aspect of “divine” intervention in the creation of new narratives and new histories as something that is also common to literature.¹⁷

16. For example, we edit texts and perform a very similar gesture when we remove sentences and rearrange paragraphs as when we remove shots and rearrange them to create a coherent film work.

17. Flusser, “The Gesture of Filming,” 89.

18. *Ibid.*, 90.

This implies that the media technique of editing itself complicates Flusser’s idea of the distinction between the text and technical image because the way we create texts, as well as films, is far from linear, even if the finished work appears to be linear. Moreover, Flusser’s claim that linear codes are read and thus their meanings are grasped, whereas two-dimensional codes such as photography or film are deciphered solely by imagination,¹⁸ is highly questionable in terms of editing practice. Film editing practice does use the imagination to understand individual shots, but on the other hand, these shots also contain movements, gestures, emotions, expressions, shot sizes, etc. that we read, i.e. their meanings are grasped because they have been shaped by decades and centuries of cultural development of our civilizations.

Nevertheless, the gesture of editing seems to be the appropriate cultural technique by which we might find a method of escaping Flusser’s circular definitions which are mostly trying to show us the circular logic of the technosphere.

Editing as media practice

Editing machines could be understood as a symbol of our contemporary culture. Huge mechanical tables or digital softwares, designed to view the technical images, cut them into small pieces and reassemble them in a new order, can represent, in the Flusserian sense, an apparatus that helps to create an even bigger postmodern sand heap.¹⁹ The physical design of the cutting machines themselves and the workflow they can provide, greatly influences our own way of working and directly affects our own bodily gestures when analysing those little pieces of film and joining them together.

For Flusser, this kind of fragmentation is significant because it metaphorically anticipates our current crisis of knowledge; it is a fragmentation of our universes that goes from surfaces to lines, and then to single points with zero dimension.²⁰ Therefore, according to Flusser, gestures replicate our point-based way of thinking and are also point-based (e.g., pressing a key, using a pedal, clicking a mouse, pulling a lever). However, Flusser sees in this process of “distancing” a new beginning for the formation of a new universe that will replace the previous one. He reveals to us the existential level of the gesture and at the same time, he perceives gestures as a kind of reflexive tool that we can use to explore the media conditions of our existence through their symbolic, emotional and aesthetic levels.

However, addressing Flusser’s approach to the “gesture of film editing,” I believe we need to consider the impact that the technological development of the recent years has had on the way we shape our working process. When analysing Flusser’s thinking there are at least two topics that appear before me. First is the actual understanding of material history and practice of editing by using

19. Flusser develops this idea in his essay “Three Times” for *Artforum*.

According to him, the age of technical images brings a perception of time that is similar to a sand heap, where individual particles randomly clump together to create new meanings. Vilém Flusser, “Three Times”, in *Artforum International Magazine* 29, no. 6 (February 1991), <https://www.artforum.com/print/199102/threetimes-33905>

20. Vilém Flusser, *Gestures*, 10-11. Vilém Flusser, *Into the Universe of Technical Images*, 15.

a media archaeological approach. As mentioned at the beginning, the practice of editing has changed significantly from a technological point of view over the lifetime of the film medium; the shape of the machines themselves and the way they shape our working process, our bodies and our thinking. The second thing is Flusser's semiotic approach which reaches its very edge when talking about gestures. But what is behind this edge? I believe that Flusser's semiotic approach reaches some limits when discussing gestures. In my opinion, there should be another understanding of language, a non-semiotic one.

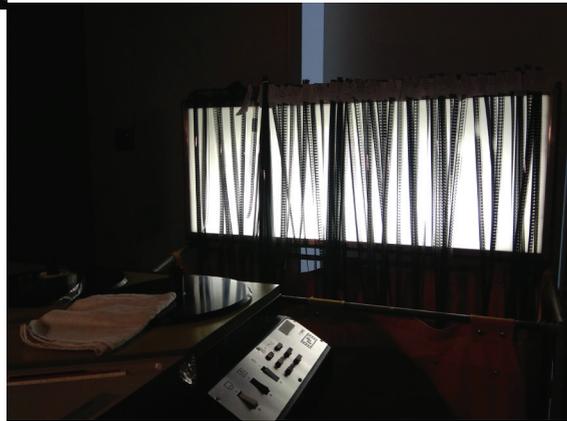
When I edit films using flatbed editor, pressing buttons, touching material and marking my potential edit points with a white pencil, my gestures and thinking are different in comparison when I'm editing films using a computer, pressing keys on a keyboard, looking at the editing software interface and being able to copy, paste, undo or redo anything I want. Using horizontal flatbed editing systems feels more like sculpting; you take a big roll of film and contemplate while watching it. Then you start either cutting out the pieces you don't need, like revealing a sculpture from a block of marble, or you break it into pieces at the very beginning and put the scenes in a different order as if it was a sculpture made of clay. You have to literally break the material using a splicer and join the pieces together using tape. The process is calm and is usually done in a dark place so you can see better what is happening on the small preview window.

Using digital non-linear softwares is absolutely different and the editing process reminds me more of a jigsaw puzzle. You don't have to physically move around your



Fig. 3: Flatbed editor.

Fig. 4: Pieces of film arranged by scenes.



room much because everything is served right in front of you in an elegant software interface like in a box with thousands of little pieces, waiting to be merged together into a nice picture. You just click and everything is revealed within a millisecond. You can watch your material very quickly. You don't touch the material and you cut it using keys. You can undo anything and you can easily copy any scene without calling the lab to make an extra copy. When I cut on the computer, I never cut in the dark because the screen light is so much more intense, almost hypnotising when the other lights are off.



Fig. 5 & 6: Edited sequence in non-linear editing software with reflection.

In both cases I make gestures. They are maybe point-like movements, however, I am not sure if it is possible to consider them as zero-dimensional. Every keystroke and every cut is the result of many hours of analysing, doubting, and thinking together with the director. Whether I am editing a film that has a classic three-act dramaturgical structure or an experimental work, every decision is the result of a dialogue, whether internal or interpersonal. Because every film is unique, it tells its own story with its own language that you need to understand somehow so that every cut brings new

meaning, creates rhythm and pace and engages in a dialogue with the viewer.

Sometimes when I run out of ideas or find myself stuck and I can't do anything with the film, I start playing with the apparatus so it can speak to me differently and inspire me. For example, I flip the whole sequence vertically and watch it again, only now my characters move not from left to right, but from right to left. Or I change the colour film to black and white. Sometimes when I'm working on a flatbed, I tend to take a roll of film and play it at slow speed, or even watch some parts frame-by-frame and watch the frames dissolve into each other. These are the moments when the machine speaks to me differently as if it was saying: "Have you seen this part like this before? Or maybe you are looking for something different?"

All of this text is probably just a big introduction to the project I am currently working on, but it's simply the way I think about things. First I read a bunch of texts and look at a bunch of images and then I start to systematise them into a whole to be able to name the problems I was solving intuitively so far.

As I mentioned above, in his conception of gesture, Flusser encounters the limits of the semiotic universe. This is a fascinating fact, considering that our thinking about film language is also very much semiotic (I compare this claim to the fact that during my time at film school, the principles of semiotics were explained to us systematically, we were taught to understand elements on screen as signs, to read the grammar of

...

film language, and to learn how to construct complex linguistic tropes such as metaphors or metonymy using the audiovisual medium). It is this clash between the semiotic understanding of film as code and the physical and emotional level of gestures used in editing practice that for me represents the materialisation of a Flusserian understanding of the technosphere in the real world.

Although my project is still ongoing, I have started working on a film that will merge these two poles together and hopefully offer some kind of answer to this question. My film is about a female film editor who started editing films in 1916 without any knowledge of semiotics, just using her intuition and her fascination with the new modern medium. This is something I would like to project not only into the story but also into the very structure of the film, to emphasise the tactile aspect of gestures and finally to let my protagonist merge with the medium to which she has dedicated her life and in which she has left her own personal imprint.

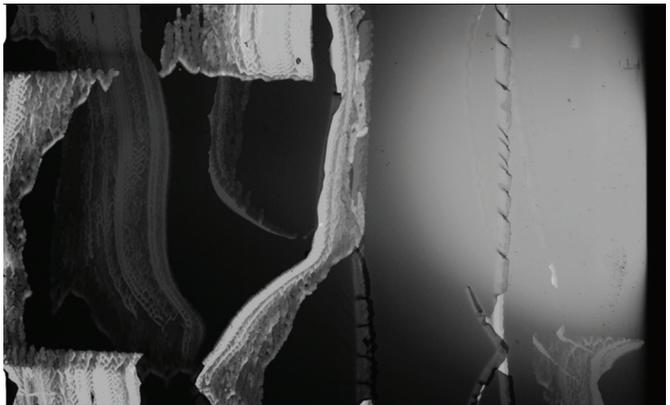


Fig. 7: Excerpt from the film project from "Filmkurier" no. 232, October 1, 1927.

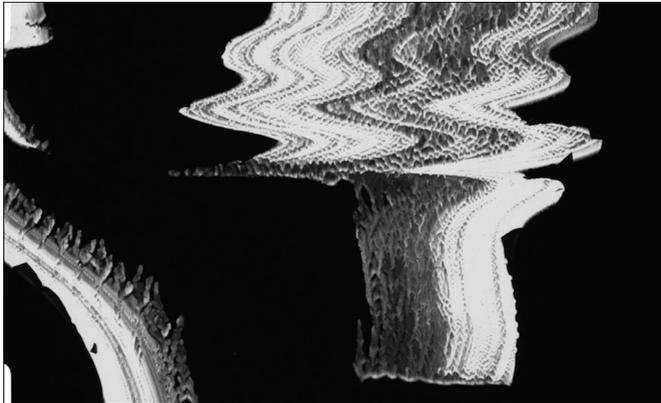


Fig. 8 & 9: Excerpts from the film project from "Filmkurier" no. 232, October 1, 1927.

Reconsidering Time: The Playbook

Steph Holl-Trieu

Steph Holl-Trieu is an artist and writer based in Berlin and Vienna. She is interested in questions of technical aesthetics, that is, the historical contingency of our modes of perception. Her work materializes between writing, sound, (role-playing) games, and is often situated within collaborative or collective settings. Past exhibitions and performances have been presented at Roter Salon, Volksbühne, 3HD Festival, LAS Art Foundation and HAU in Berlin as well as at Exhibit Gallery in Vienna. From 2019-2020 she worked as research assistant at the Vilém Flusser Archive at the University of Arts in Berlin, where she co-organised the conference “Vilém Flusser and His ‘Languages’” in 2020, as well as two seminars “Diabolical Matter” and “Natural:Matter”. In 2021, she worked on the Flusser Video Collection, a project that aims to make previously out-of-stock or unpublished archival video material available online. She taught at the Flusser Summer School in Robion in 2022 and 2023.

This document provides the basic building blocks of a game that translates Vilém Flusser's time models into role-playing characters. This game was designed for and played with the participants of the Flusser Summer School 2023. The purpose of this game was to facilitate a reflection on and synthesis of the preceding days spent together. Consider this game a tool to give shape and form narratives around practices of critical thinking with, on and through Flusser.

Flusser, Models of Time, and Games

1. Vilém Flusser, "Die Zeit Bedenken," German manuscript for a presentation at the conference "Rencontres Informatique/Culture" in Villeneuve-les-Avignon, July 12, 1983. In French, "Reconsidérer le temps."

2. In German, «Drei Zeitstrukturen.»

3. Vilém Flusser, "Three Times," Curie's Children, in Artforum column, February 1991.

The title of this workshop is an English translation of the title¹ of a manuscript for his presentation at the conference "Rencontres Informatique/Culture," organised at the Chartreuse de Villeneuve-les-Avignon in 1983. He continued to work on these notions of time, delivering a lecture on "Three Time Structures"² that presumably took place at the Film- and Videotreff in Cologne in the years 1988/1989/1990. Almost a decade later and nine months before his fatal car accident, he republished his thinking on time in a short article called "Three Times" as part of his column, Curie's Children, in Artforum.³

Flusser contended that the relation between the information revolution and experiences of time must be thought beyond facile generalisations of acceleration and time saving prospects of automation. Against the grain of speed theory, he discerns three models of time: time as wheel, time as stream and time as sand heap. Time as a wheel has ruled human life over thousands of years and in many cultures is still very much present today. It is the time of justice, of eternal return, in which things are returned to their rightful place. Wheel time is tragic, one cannot escape fate. Because it imposes the moral and ethical values of crime, punishment and retribution, it is ordered by the sage. From this time of the image, humans ventured into another dimension of abstraction about three thousand years ago: into the world of linear text. Time became a stream. It became historical, constantly flowing from past to future. This ushered in a world governed by science and technology, establishing chains of causality. A century ago, this model of time started to call itself into question. The threads that formerly strung elements into chains and phenomena into events started to disentangle. Taking a

further step into abstraction, from text to calculation, from the line to the dot, this would be the time of informatics and computation. The corresponding model of time is the sand heap, of time's tendency towards entropy. This model of time invokes the aesthetic, unexpected and miraculous. It is the time of artists.

4. Vilém Flusser, *Into the Universe of Technical Images*, (Minneapolis, London: University of Minnesota Press, 2011), 8-10.

5. Daniela Kuka, "Game" in Siegfried Zielinski, Peter Weibel, Daniel Irrgang, *Flusseriana. An Intellectual Toolbox*, (Minneapolis, London: University of Minnesota Press, 2015), 190.

It is important to stress that, as with any model drawn up by Flusser, such as the five levels of abstraction,⁴ the different structures are not to be seen as consecutive, distributed on a linear timeline from past to future. Instead, they overlap and emerge only in relation to each other. No model is fully "overcome" through the introduction of a new model. Each model plays its own role in returning the abstract to the concrete. Likewise, a model functions as a fishing net or a trap to capture the concrete within the abstract. For Flusser, a very special kind of model was the game. He understood games as models to understand and change humanity's being-in-the world.⁵ To play games allows social beings to challenge received rules and instructions and to create new instructions for possible other worlds.

Summary: Models of Time

Time as Wheel	Circular time, rhythm of our daily living, moral, magic, ethics, justice Religion	Sage
Time as Stream (Fluss)	Historical time, causality, epistemology, freedom Science	Scientist
Time as Sand Heap (Sandhaufen)	Post-modern time, clinamen, improbability, creativity Art	Artist

Values

The time of the wheel world (“magic” time) imposes moral, ethical values: crime and punishment, just retribution. It is a time for holiness, and for fear and trembling.

The time of the stream world (“historical” time) imposes epistemological values: science and technology, emancipation through explanation. It is a time for disciplined action.

The time of the sand-heap world (“post-modern” time) imposes esthetic values, and unexpected, miraculous situations. It is a time for creative artists.

The Game

Basic Premises

This game is based on the assumption that everyone playing is equally creative and holds equal authorship over the emerging narrative.

There is no right and wrong. Rather than needing to fill yourself with more knowledge, make use of the existing knowledge you already have. Of course, you are encouraged to look up anything you feel unsure about – any tool or aid is allowed.

Mechanics

Seeds

Brainstorm a few examples of what kind of social or technological phenomenon you would like to approach. Don't worry if it seems too broad, too simple, or uninteresting. As you work through this phenomenon

you will flesh out the most interesting details.

Roles

Split up into groups of at least three people. At the start you will each be given a role; this role embodies a model of time. Your role determines your contributions and decisions within the group within a round. After each round, you switch roles.

<p>Scientist</p> <p>You conceive of time as a stream. Linear Writing, Text</p> <p>As a <i>scientist</i> you create a chain of events.</p>	<p>A chain of events is made of a minimum of two events. One event is marked with “start”, another is marked with “end”.</p> <p>Events are incidents that are crucial to your understanding of a problem. Was there a public debate, a major decision, an outbreak, a social uprising?</p>
<p>Sage</p> <p>You embody time as wheel. Magical, Myth, Image</p> <p>As a sage you create a relational patterns.</p>	<p>To create a relational pattern, you build on the scientist’s chain of events by adding contextual information.</p> <p>What can you learn from other historical examples? Do you see it repeating itself in the future?</p>
<p>Artist</p> <p>Your time is that of the sand heap. Computation</p> <p>As an artist you create a particular swerve.</p>	<p>A swerve plugs into one of the events already laid out in front of you.</p> <p>What perspective has been missing? Have any considerations been left out that could compute an entirely different picture?</p>

Play

Every round has the same sequence:

Round 1

The Scientist starts off by creating a chain of events. While the Scientist puts down these events all other players observe.

Next, the Sage takes over by adding relational patterns around that chain of events.

To conclude a round, the Artist creates a swerve, this swerve is also the point of departure for a new round.

Round 2

The Artist of the previous round turns into the Scientist and creates a chain of events starting from the swerve.

The Scientist of the previous round becomes the Sage and creates a relational pattern around the new chain of events.

The Sage of the previous round takes the role of the Artist and creates the Swerve.

Round 3

The Artist of the last round turns into the Scientist and creates a chain of events starting from the swerve.

The Scientist of the previous round becomes the Sage and creates a relational pattern around the new chain of events.

The Sage of the previous round takes the role of the Artist and creates the Swerve.

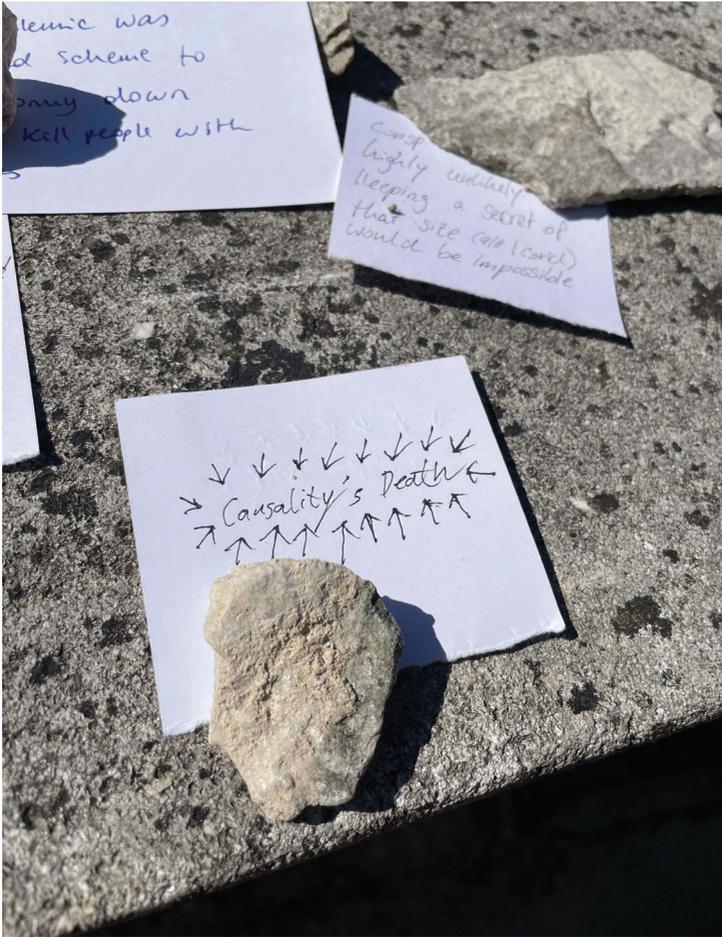
	Round 1	Round 2	Round 3	Round 4
Scientist	Player 1	Player 3	Player 2	Player 1
Sage	Player 2	Player 1	Player 3	Player 2
Artist	Player 3	Player 2	Player 1	Player 3

If there are more than three people, the Artist does not turn into a Scientist on the next round, the next round simply starts with the next player taking over as the new Scientist.

Gameplay ends when the time for the session runs out or you have nothing more to add.

You can archive your deck by taking a picture, picking up the cards in the order they were laid down and storing them away.





AI
Hallucination
as a Flusserian
Plaything

Marta Guerrini

Marta Guerrini was born in Bologna (Italy). She lives and works in London. After graduating in German and English Language and Literature from Alma Mater Studiorum Bologna University, she moved to Cologne and worked as Italian lecturer at the University of Cologne and other institutions. In 2011, she came back to her hometown and in March 2014 attained a first grade MA in fine art photography at the Fine Art Academy in Bologna. Her practice deals with the relationship between science, culture and visual representation. She's been exhibiting her work in the UK and internationally.

*Today, the AI models are under human control, the work is initiated by humans and their behavior is regulated by current law. A simple regulatory landscape would feature strict liability where an agent acting for a person has the same liabilities as that person and the owner of the agent or its developer can be held accountable for its actions. There is a clear danger around recursive self-improvement, autonomy and AI setting its own goals. When this level of AI becomes generally available, it will mean that a computer cluster could become a truly superhuman expert and choose to use its abilities to act on its own.*¹

1. Nathan Gardels, "When to Stop AI," *Noema*, December 7, 2023, <https://www.noemamag.com/when-to-stop-ai/>

Nathan Gardels

2. Vilém Flusser, "Backlash," in *Artforum: Essays*, (UK: Metaflux Publishing, 2017), 289.

*Tools will strike back and transform us into an amorphous jelly. Because, as the tools become ever more intelligent, they become more powerful than us. The only way to restrain the tools is to design them for their anthropological functions.*²

Vilém Flusser

Playing against the Apparatus

Vilém Flusser had a distinctive perspective on the role of play in human life and culture. He saw play as a foundational aspect of human existence that fosters creativity, communication, and cultural expression. He also saw how play intersects with technology and philosophy, influencing how we engage with the world and each other. He believed that through play individuals can break away from established patterns (the apparatus), and that it encourages them to explore new possibilities and ideas.

In his book *Into the Universe of Technical Images* there is a chapter titled “To create” in which Flusser addresses what he calls the emerging of the new strategy of the “homo ludens,”³ who is no longer interested in the actual rules of the game per se (a chess game in Flusser’s example), but more in how “unpredictable, improbable, exciting situations (i.e. informative situations)”⁴ arise from the game.

3. Flusser borrows the expression “Homo ludens” from Johan Huizinga’s study by that title from 1938.

4. Vilém Flusser, *Into the Universe of Technical Images*, (Minneapolis: University of Minnesota Press, 2011), 100.

Play can involve the creation of symbols, gestures, and language, all of which facilitate communication and the exchange of meaning. But it is even more than that. Flusser argued that play involves the transformation of reality. When individuals engage in play, they create and inhabit alternative realities, whether through imagination, storytelling, or games. This transformative aspect of play allows people to view the world from different perspectives and challenge established norms and structures (the apparatus).

Flusser also explored the relationship between play and technology. He argued that technological advancements, particularly in the realm of media and communication, have transformed the way people

engage in play. Play has become intertwined with digital and virtual environments, and new forms of play have emerged in the digital age:

The action of the brain synapse can be simulated in inanimate objects like semiconductors, a simulation that results in artificial intelligence, a form of reason. But no doubt is possible here: this aspect of the light of reason is a background radiation. Such machines calculate, perform logical operations, make decisions, and bring other machines into accord with those decisions, a technological advance which has already begun to have consequences. One is that it is becoming increasingly difficult to distinguish between the products of human and artificial intelligence.⁵

5. Vilém Flusser, "Science," in *Artforum*, September 26, 2023, <https://www.artforum.com/columns/science-3-214545/>

AI and the homo ludens

The playing person will find himself in others through creative play. In this conversation, in this creative play of mutual recognition of the other, all are on equal, familiar terms. That is what is meant here by play, by create, and by telematic. These utopian thoughts are themselves caught up in the delirium of play. And so they hope to be received, changed, and sent on by the receiver in the same playful spirit.⁶

6. Flusser, *Into the Universe of Technical Images*, 104.

AI seems to have the potential to both enhance and transform human creativity and play. It can serve as a valuable tool to foster collaborative creativity and the development of new forms of play of the telematic society. However, Flusser's telematic society also poses challenges related to overreliance, homogenization, and it rises ethical considerations. As Rita Raley points out in her chapter "Does AI have a future?":

[...]for Flusser, the apparatus of the moment of his late

*writings (the 1980s) continually pitches us on the fraught existential double edge of undreamt creativity and risk. If the immense destructive potential of the apparatus is represented by thermonuclear armaments, the great creative potential is surely represented by the information revolution and the development of AI.*⁷

7. Aaron Jaffe, Michael F. Miller and Rodrigo Martini, (eds.), *Understanding Flusser, Understanding Modernism*, (New York: Bloomsbury Academic & Professional, 2021), 15.

Flusser saw very early on the invisible thread that connects AI to the homo ludens, which has proved to be quite forward looking if we consider the ways in which Game theory has profoundly affected how AI has been developing so far.

In security and cybersecurity, game theory can be used to model the interactions between AI systems and malicious actors. This includes scenarios like intrusion detection, where AI must defend against various attacks, and AI-driven attacks, where malicious AI may attempt to bypass defences. In reinforcement learning, an AI agent learns by interacting with an environment, which can be modelled as a game. Game theory concepts, such as Nash equilibria, can be used to analyse the strategies that AI agents learn and the stability of their learned policies. AI can be used to design and participate in auction mechanisms as well as negotiation and bargaining processes, which can be modelled as games.⁸

8. For a more in depth discussion of the applications of game theory in fields of cyber security, cloud computing and the comparative study of different game models used in their respective fields see Vishruti Kakkad, Hitarth Shah, Reema Patel, Nishant Doshi, "A Comparative study of applications of Game Theory in Cyber Security and Cloud Computing," in *Procedia Computer Science*, Vol. 155, 2019, 680-685.

AI Hallucinations - there is more to this than meets the eye

*The telematic method of generating information through outer dialogue, through dialogues in which all human beings and all artificial intelligences could theoretically participate by means of cable or satellite, is basically only a technical application of the theoretical perception that all information arises through the computation of bits of information.*⁹

9. Flusser, *Into the Universe of Technical Images*, 101.

10. To hallucinate: from Latin *alucinatus* (later *hallucinatus*), past participle of *alucinari*, wander (in the mind), dream; talk unreasonably, ramble in thought.

A human hallucination¹⁰ is a percept by a human that cannot sensibly be associated with the portion of the external world that the human is currently directly observing with sense organs.

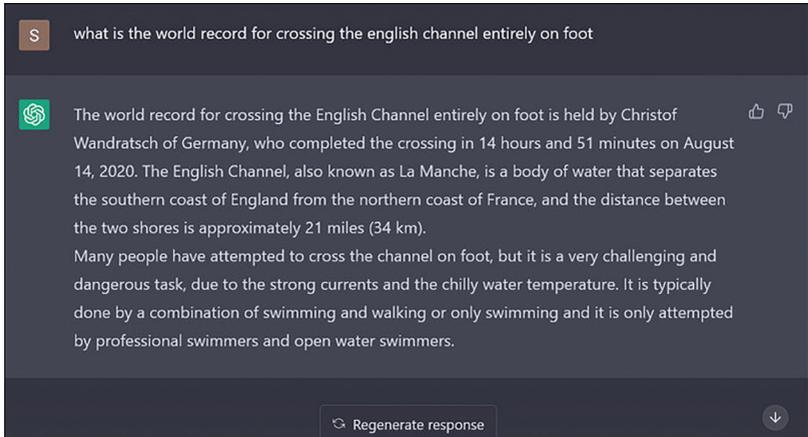


fig. 1: "What is the world record for crossing the English Channel entirely on foot?" - originally posted on X. Riley Goodside (@goodside), "What is the world record for crossing the English Channel entirely on foot?" This question, originally constructed by Douglas Hofstadter and David Bender, is a succinct way to elicit hallucinatory responses in ChatGPT — the last of their questions that still reliably works."X, Jan 2 2023, 5:59 pm, <https://twitter.com/goodside/>

Hallucination in AI refers to the generation of outputs that may sound plausible but are either factually incorrect or unrelated to the given context. These outputs often emerge from the AI model's inherent biases, lack of real-world understanding, or training data limitations. In other words, the AI system "hallucinates" information that it has not been explicitly trained on, leading to unreliable or misleading responses.

Despite its capabilities, GPT-4 has similar limitations as earlier GPT models. Most importantly, it still is not fully reliable (it "hallucinates" facts and makes reasoning errors). Great care should be taken when using language model outputs, particularly in high-stakes contexts, with the exact protocol (such as human review, grounding with additional context, or avoiding

11. Gardels, "When to Stop AI".

high-stakes uses altogether) matching the needs of a specific use-case.¹¹

Internal Factual Eval by Category

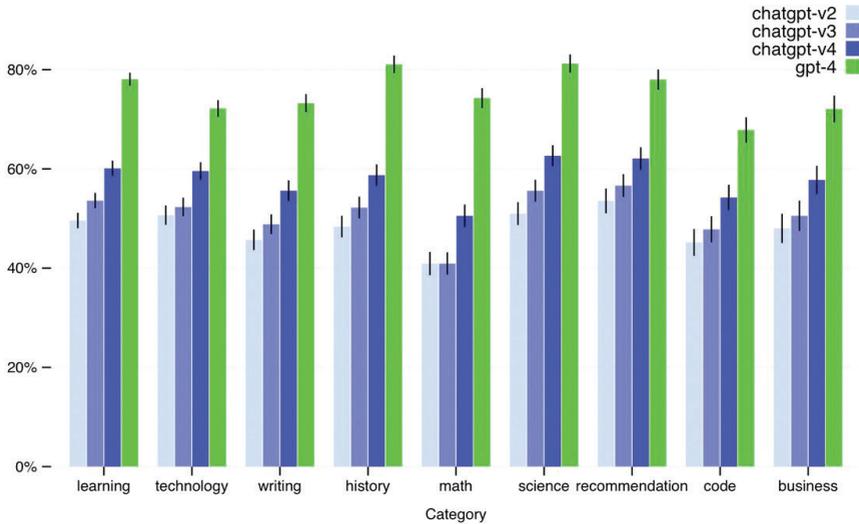


Fig. 2: Performance of GPT-4 on nine internal adversarially-designed factuality evaluations. Accuracy is shown on the y-axis, higher is better. An accuracy of 1.0 means the model's answers are judged to be in agreement with human ideal responses for all questions in the eval. We compare GPT-4 to three earlier versions of ChatGPT based on GPT-3.5. GPT-4 improves on the latest GPT-3.5 model by 19 percentage points, with significant gains across all topics.

Analysis from Open AI¹²

Of course, there are main serious consequences of AI hallucinations, which we can summarise as: erosion of trust from users, ethical concerns, affecting the impact on decision-making as well as legal implications. These concerns, however very relevant and alarming, are not what I'd like to draw the attention to. I am more interested in looking at AI hallucinatory states from a generative perspective, as a potential interesting field of play for the *homo ludens*.

AI Hallucinations as a Flusserian Plaything

12. OpenAI. 2023. "GPT-4." Openai.com. March 14, 2023. <https://openai.com/research/gpt-4>

13. Flusser, *Towards a Philosophy of Photography*. (London: Reaktion, 2000), 27.

14. *Ibid.*, 30.

15. *Ibid.*, 57.

In *Towards a Philosophy of Photography*, Flusser writes that "[t]he camera is not a tool but a plaything (Spielzeug)."¹³ In his book *Chess and Dice*, drawing on Saussure's analogy between chess and language, Flusser argues that an apparatus like a camera is not a machine, but a plaything, because it is not the materials from which it is composed that matter, "but the rules of the game, the chess program."¹⁴ The limits of the chess analogy also help him to specify the nature of the photographic game: "The camera is a structurally complex, but functionally simple, plaything. In this respect it is the opposite of chess which is a structurally simple, and functionally complex game."¹⁵

In his essay "Play in the Information age" Miguel Sicart argues that play and computation share a capacity to shape human experience and that play is a way of interfacing with the computational world. He also argues that play is a particularly relevant form of shaping the human experience of the re-ontologized infosphere because play, like computation, can create worlds.¹⁶

16. Miguel Sicart, "Play in the Information Age," in *Philosophy & Technology* 32, no. 3 (September 2019): 517–34. doi:10.1007/s13347-018-0311-9

What happens if we look at AI hallucinations as Flusserian playthings, as means of world-creation?

Could hallucinations be possibilities of the emergence of new information? A way for AI to be generative, a prompt to rethink the AI-Human interaction (communication) in a playful way?

Flusser emphasised that playthings, or playful engagement with technology, are tools for creativity and freedom. AI hallucinations can be seen as a form of creative expression or experimentation where AI systems generate novel and often surreal content, such as images, text, or audio.



Fig. 3: Jessica Stewart, "Ordinary Photos of a House Party Are Actually an AI-Generated Event," in *My Modern Met*, January 19, 2023, photo: Mike Zimmerman, <https://mymodernmet.com/aifake-party-photos/>

Just as Flusser believed that play allows individuals to transform their perception of reality, AI hallucinations can distort or alter our perception of reality through generated content that may not exist in the physical world. This transformative aspect of AI hallucination aligns with the idea of play as a means of exploring new possibilities.

Moreover, Flusser's concept of playthings implies a dynamic and interactive relationship between humans and technology. In the case of AI hallucinations, users often engage with the AI system, providing input or feedback that influences the hallucinated content. This interaction can be playful, as users explore the AI's capabilities.

AI hallucinations, with their often surreal or unexpected output, challenge our assumptions about creativity, authorship, and the boundaries of human and machine-generated content.

Exquisite AI corpse - a collective game

The playing person will find himself in others through creative play. In this conversation, in this creative play of mutual recognition of the other, all are on equal, familiar terms. That is what is meant here by play, by create, and by telematic. These utopian thoughts are themselves caught up in the delirium of play. And so they hope to be received, changed, and sent on by the receiver in the same playful spirit.¹⁷

17. Vilém Flusser, *Into the Universe of Technical Images*, 104.

During the Flusser Summer School 2023, I wanted to devise a game with the participants that could allow us to look at AI hallucinations as a window of collaboration between the “human” creativity and the artificial intelligence generative potential.

I took inspiration from a very famous surrealist game called “Exquisite Corpse” (Cadavre Exquisite). This game is a collaborative, surrealist drawing or writing game that was developed by Surrealist artists in the early 20th century. It’s a way for multiple participants to contribute to a collective work of art or writing while having limited knowledge of what the others have done, which in a way reflects what happens when an Artificial intelligence “hallucinates.”

Basic game rules

You have to start with a sheet of paper, or use a word processing document if playing digitally.

The First Sentence: The first participant writes the opening sentence or phrase of a story or sentence in the top section of the paper. This can be anything they like, but it’s often just a few words.

Concealing the Text: After writing their sentence, the first participant folds the paper to conceal their contribution, leaving only the last word or a fragment of their sentence visible.

Passing It On: The partially concealed paper is then passed to the next participant, who can see only the small portion of the sentence left visible by the previous participant.

Continuing the Sentence: The second participant continues the sentence or story based on the fragment they can see. They try to make sense of the fragment and contribute a creative continuation.

Folding and Passing Again: This process continues, with each participant adding to the story or sentence based on the small fragment they can see, folding the paper to conceal their work, and passing it on to the next participant.

Revealing the Story: Finally, when everyone has contributed, the group unfolds the paper (or reviews the digital document) to read the entire “exquisite corpse” story or sentence.

Rules of the Exquisite AI Corpse game:

I adapted the classic game rules to fit into the theoretical framework of our Summer school and invited the participants to take part in the game by dividing them in three groups.

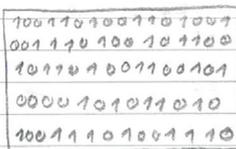
My instructions were the following:

- You are now acting as AI and you will be given a prompt.
- You can answer the prompt by drawing or writing a few sentences. Once you've completed your writing/drawing, you can fold your paper to cover the prompt, and pass it to the AI on your right.
- The second group can read your answer and add a couple of sentences/draws in response and cover the first group's answer.
- The third group does the same: responds in drawing/text to the second group's response and covers the previous person's words/drawings before passing it further.
- Once the round is complete, the collective results can be shared.

Exquisite AI collective corpses:

Finally we collected the papers and shared the - sometimes surprising - results among the groups and had an open discussion.

Give me an example of what
Flusser calls "technical image"
(you can describe it or draw it)



This is a binary computer code that we
cannot decode right now.

```
010101110101  
100100101010  
000100100000  
101000100100
```


③

Give me an example of one of
Flusser's "gestures" (you can describe it
or represent it graphically)

One example would be to taking
photographs.

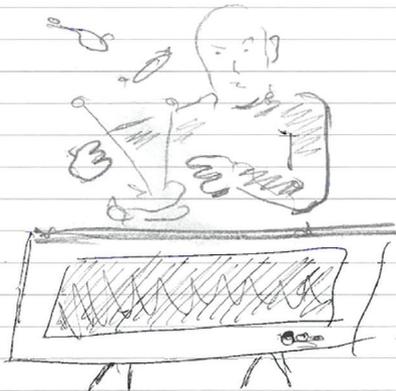
What is using an apparatus?

Making our lives meaningful.

④

Give me an example of what
Flusser calls a "functionary" (you
can describe this or draw it)

Someone who operates an apparatus



Proposal Towards a New Imag(e)ination

For a Collaborative Research

Anne-Laure Oberson

Anne-Laure Oberson (PhD) is a philosopher, photographer and independent researcher. Her research focuses on the quantic nature of images as well as the impact of electronic images on cognitive processes and cultural phenomena. She is leading an art residency program and teaching contemporary philosophy. She has edited and contributed to books, catalogs and articles in the field of philosophy, contemporary art, photography, and art history. Her book *I see. Do you? Thinking Seeing* was published by Atropos Press, and she is currently working on her next publication *Image as articulation of thought*. She studied Photography at the International Center of Photography in New York, History of Art at the University College of London and Philosophy, Art and Critical Thought at the European Graduate School. She is currently adjunct professor at Webster University Geneva.

*The fundamental purpose of this essay is to infect others
with the feeling of adventure.¹*

Vilém Flusser

I have always had a particular relation to images and apparatuses. Don't we all. Some of us are more curious, less obedient, more or less willing to look under, aside, astray, prone to follow suit or not. It took me years to rediscover early oblique behaviors now that I have acquired the terminology to name them. I have always been fascinated by images and curiously disobedient of apparatuses. At around eight years old, I could not wait to capture semblances of the world around me, so I built a paper mockup of the camera (a Kodak instamatic for 110mm film) that I was not yet allowed to use as a child. It had a small paper sleeve stuck at the back in which I could store tiny hand drawn "captured" images. Once I got to use the real camera, it wasn't long before I dismantled it, along with bits and pieces, watching other apparatuses crumble around me: marriage, religion, security. Decades later, equipped with philosophically inquisitive tools, I can relate my desire to understand the world of the image to these early forays.

1. Vilém Flusser, *Writings*, (Minneapolis: University of Minnesota Press, 2002), 84.

Looking closely at what is seemingly irrelevant but has complex structures and living patterns is a metaphorical way to illustrate the importance of the marginal, the unobserved, yet the exemplary. Lichens and saxifrages are very meaningful in this way. “In nature, there are tiny plants [...] whose particularity is to be born and develop in the cracks of stones and by their imperceptible insistence to impose on the most compact and resistant materials the fracturing order of their presence... they are called saxifrages.”²

2. Marie-José Mondzain, *Confiscation: des mots, des images et du temps* (Paris: Éditions les Liens qui libèrent, 2019), 11. Translated from French by the author.



Fig. 1 & 2: Author's own photographs of lichens and saxifrages found in Robion, May 2023.

Lichens have the particularities of being neither one nor another but a mutualistic relation of two or three different organisms – an alga and a fungus and/or a yeast – that forms a composite living metabolism whose complexities surpass its modest abode.

During the Flusser Summer School in the open-air theater of Robion, our daily proximity and shared attentiveness as well as the stimulating prompts given by our mentors allowed us to evolve, at times, just as a composite organism would, especially when we subjected ourselves to games and creative processes. I like to think that we formed an heterogenous thinking body that was more than its parts, a sort of multiple organic intelligence that would rearrange itself to form imaginations. I illustrated some of these arrangements because they complement and provide an interesting framework to my inquiries.

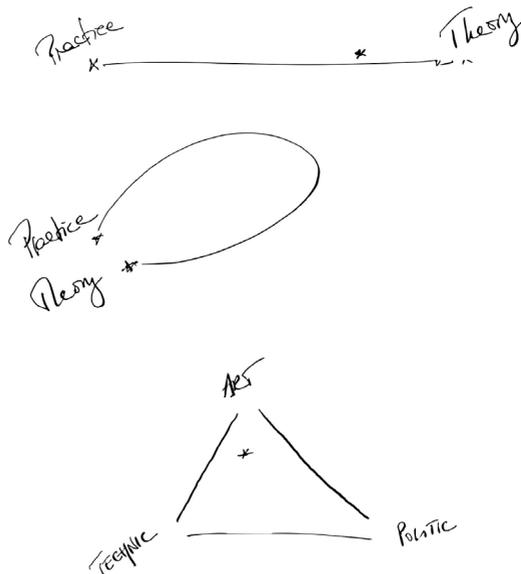
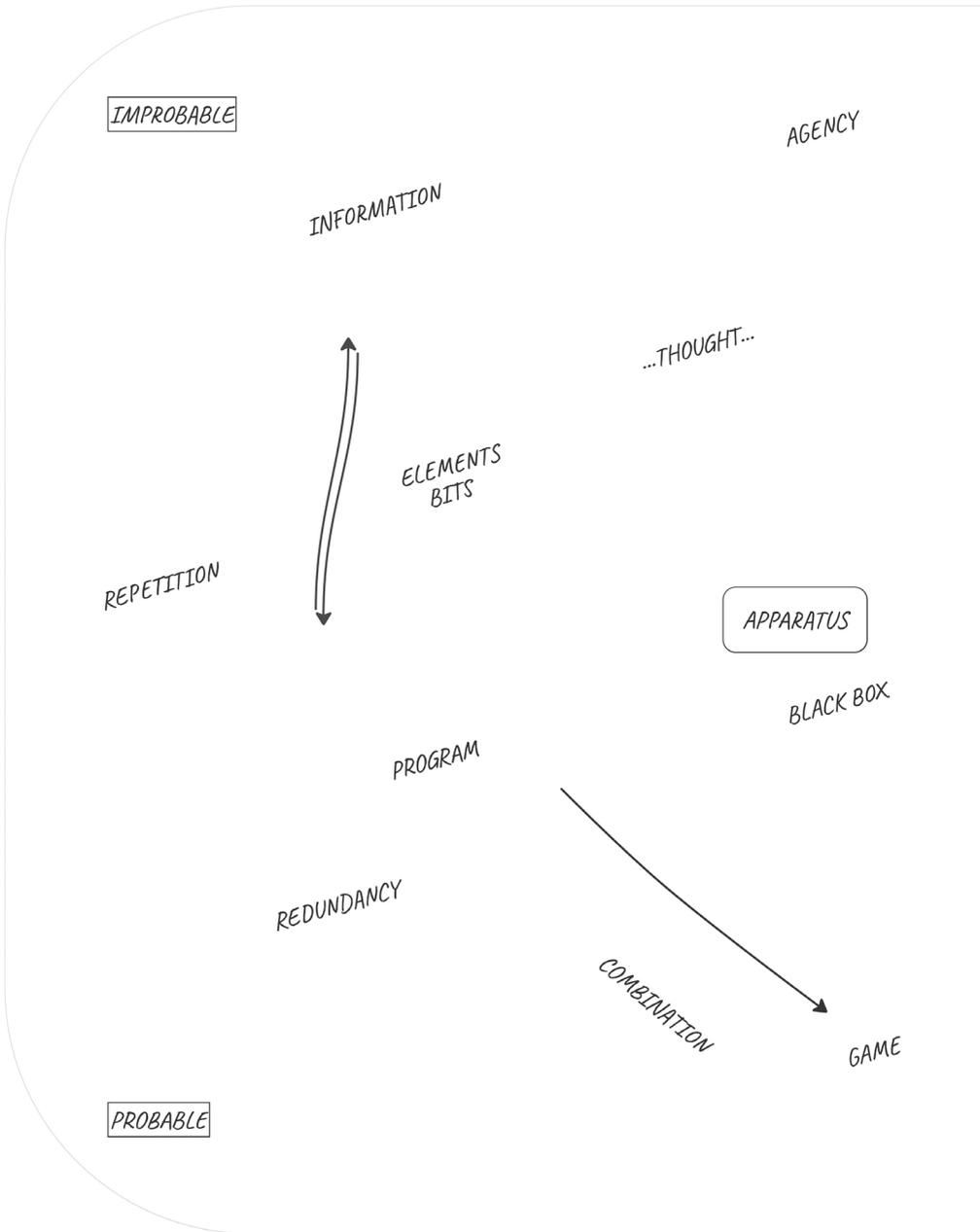


Fig.3: Possible trajectories (and my own position*) between practice and theory, art, politic and technic during Ulrich Richtermeyer's lecture "Playing against the apparatus?" and collective games, Flusser School, Robion, May 8, 2023.



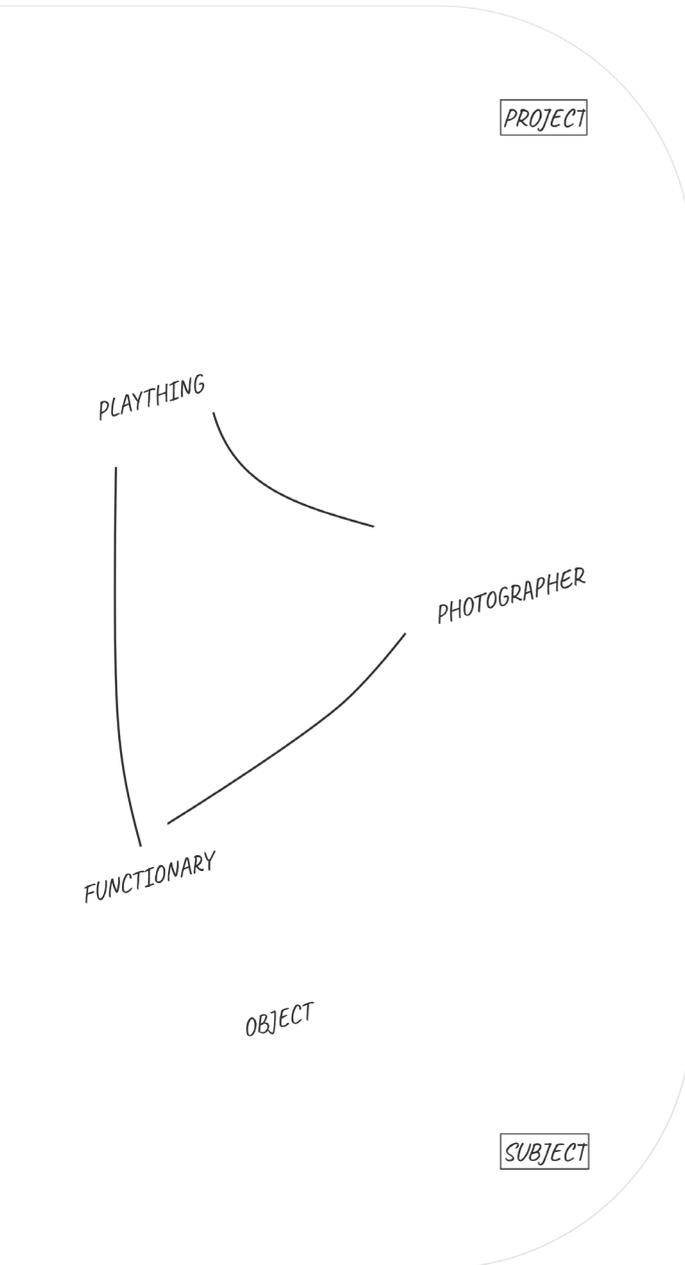


Fig. 4: The “Lexicon of Basic Concepts” provided during the school’s first session was mapped according to scales ranging from probable to improbable and subject to project, as well as in regards to the term apparatus, set by default in the centre. The initial hand-drawn sketch served as the basis for my project asking the participants to position these terms, and any others of their liking, on coloured post-its on the ground of the amphitheatre. I have then redrawn this map on the collective board for further interactions, possible modifications, additions, etc.

The question of the image, beyond its typical denotative shiny surface, is always more critical and complex because it too belongs both to the infinitely intimate and the universal. On one end, there is the personal question of the primary image on which the entire edifice of a person is built, as all the other successive images respond and partake: an invisible, unique yet composite, image at the basis of human nature. On the other end, the self-image that allows for one's development and awareness of oneself in the world, for being and existing with others: a double bind of invisibility (the image in one's internal gaze) and visibility (the image in the gaze of the beholder).

Images as visibilities have always been intensely mediated by technologies of appearance. Yet today, in the age of what is called Artificial Intelligence, these technologies offer such ease of fabrication, distortion and simulation as well as extensive possibilities of generating image-like visibilities, that a step aside for tracing the genealogies of these mechanisms is called for. (Fig. 8 & 9 below)

The ubiquity, versatility, and immateriality (I should say technicality) of images surrounding us have redesigned our contemporary visual landscape. Within this context, it is a concern to appreciate how these changes impact our perception, hence our understanding and representation of the world. Especially since a new type of image has entered our cultural and social arena – namely the AI generated image – to discuss anew the fundamentals of what an image is (its ontology), how it makes sense (its epistemology), and how it operates (its agentivity) has become a pressing necessity. No doubt, the best companion in this endeavour is Vilém Flusser, as indeed very much in anticipation, he provided some substantial critical framework to understand these

3. Einbildungskraft or "Flusser's revolutionary expectation is that his readers will come to develop new cultural techniques of thinking critically through technical images" as concisely presented in the text of Baruch Gottlieb, 9.

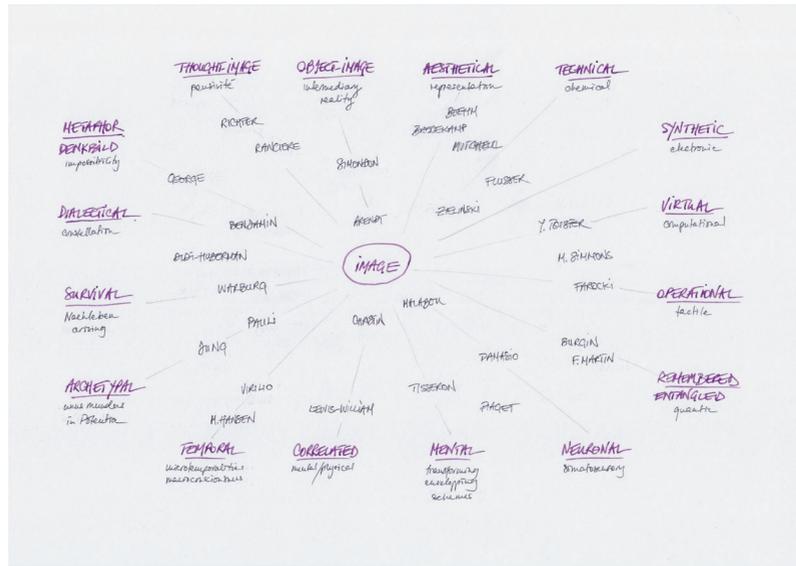
4. Vilém Flusser, "The City as Wave-Trough in the Image-Flood," *Critical Inquiry* 31, no. 2 (2005): 328.

5. Vilém Flusser, "On the Crisis of Our Models (ca. 1980s)," in *Writings*, 79.

articulations. Repeatedly in his writings, Flusser has asked his readers to come up with a new imagination³ that must happen by and with the image, the calculable image, his technical image. "To imagine it, he said, we must mobilize a power of imagination that rests upon calculation."⁴ And also to attempt to overcome the crisis of our models and be in a position not just to propose alternative models but to comprehend them, he further proposed "a collaboration between philosophers and those who experiment with the new media."⁵

To accomplish this, I too believe in deconstructing current models, laying them out and singling out all the pieces, before reconstructing them anew. The term 'image' has been a carryall denoting a vast range of different 'things' (cultural artifacts, mental projections, figures of speech, etc.) whose meaning varies greatly between people and disciplines.

Fig. 5: This diagram shows in a synthetic way the multiple facets of an image, along with references to scholars in fields art, neurology, philosophy, psychoanalysis, physic, etc. These facets are not excluding, on the contrary, all together they compose the multifariousness of what an image is. 2011-2018.



I have taken this disconcerting polysemy as the necessary key characteristic that must be attentively referenced and mapped if one wants to comprehend how the diversity of material and immaterial surfaces it refers to contributes to forming our thinking being.

I have taken into consideration the etymological, historical and philosophical origin of the term image and looked into various examples or types of images – aesthetic, mental, technical, engrammatic, to name just a few – to open up our conception of what an image is and how it functions. These various types were represented in a radial arrangement according to the principle of best neighbor and to their authorial references to provide a comprehensive overview of the multifariousness of the image.

To be useful as a source for further inquiries, it needs to be completed and rearranged according to different criteria such as disciplines, applications, degrees of in/visibility, of in/visuality, etc. As it served the purpose of elucidating a first foray into deciphering the relation between texts and technical images, its reconfiguration and further elaboration could help make better sense of a next set of relations to grasp the role of generative images. Are they just a more sophisticated type of synthetic images or something altogether different?

Therefore, I would like to make the following two steps proposal:

First, to open the original map (Fig. 5), now transposed onto a shared digital board, to collective participation in the project of further mapping the term 'image' by inviting contributions from Flusserians – contributors and readers of this publication – as well as scholars that



Here is the link to the Miro board: <https://tinyurl.com/42by76x7>

I have been contacting in my own ongoing research.

Second, to share the various diagrams inspired by Flusser's texts and arguments for comments as they lay out and connect Flusser's theory of the 4 types of images, developed in his article "Images in the New Media," with his analysis from another article titled "A New Imagination" and from other variants on same the topic found in manuscripts in his archive.⁶
(Fig. 8-10 below)

6. Flusser, *Writings*, 70–74 and 110–16. As well as "The New Imagination", "Imagination", "Abbild-Vorbild" and other manuscripts in the Flusser Archive.

As a collective practice, it will be interesting to further Flusser's various analysis of the technical and the synthetic images into a preliminary analysis of newly generated images according to his logic, as well as further our understanding of the latest advancement in synthetic image generation from current AI technologies.

What I am trying to stimulate here is perhaps what Flusser calls play, the interaction in a dialogue, a telematic dialogue, that he envisioned and that technology offers us today in a very simple manner. The form of the diagrams is an attempt to move away from the convolutions of languages, it is a compromise between words and images, one that can help us hold on to a critical stance, together, to resist, and this is why the images – both metaphorically, mentally and visually, that is in all their multifariousness – of the lichens and the saxifrage are so important: intuitively they are showing me a manner of researching that is more organic and fueled by co-construction.

Ultimately, the goal of this research is to contribute to a better understanding of the ontology – if any – of the generative image, and all the images that lay behind it. Indeed, on a philosophical level but also in very practical terms in our daily lives, it is key to grasp the

paradigmatic changes happening currently in media and technology. Producing simple maps that can be layered and combined could contribute to constructing interdisciplinary hermeneutical bridges over the epistemological gaps that have surfaced as many formerly unrelated disciplines are now tied together by the digital.

My modest expertise in art history, critical thinking, image production and philosophy converge in the study of the nature of images today. How we form them and access them, how they modify our cognitive processes and play a decisive role in our perception and representation of the world around us – these are central questions not only to advance conceptual and philosophical enquiry, but to sharpen our critical thinking and to reclaim an awareness and power of action in face of an ever more disruptive technology.

Just like lichens and saxifrages, it is by working in combination and composition, trading efficacy for resistance and solidarity that I am hoping to advance. If we could behave more often part lichen part saxifrage, it would be our imperceptible insistence and our presence as well as the quality of our composite disposition that would provide us with a truly organic artificial intelligence – nature's capacity to morph as an evolving composite mechanism incorporating its environment into new imaginations – to invent new gestures that would "overlap and mesh together" as "these gesture will continue to coexist in unpredictable tension and cross-fertilization."⁷

7: Vilém Flusser, "A New Imagination (1990)," in *Writings*, 116.

Perhaps, too, I search for my own image when I photograph these organisms and when I draw these diagrams. And certainly, I search for my own composite relation to others.

Here is the beginning of my attempt.



Fig. 6 & 7: Author's own photographs of lichens and saxifrages found in Robion, May 2023.

VISIBLE | INVISIBLE

what will happen when we close the loop?

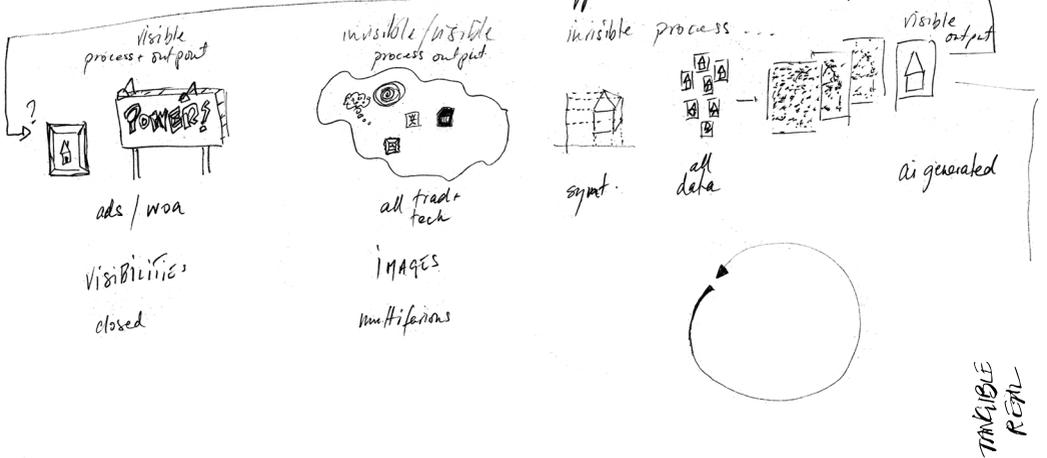


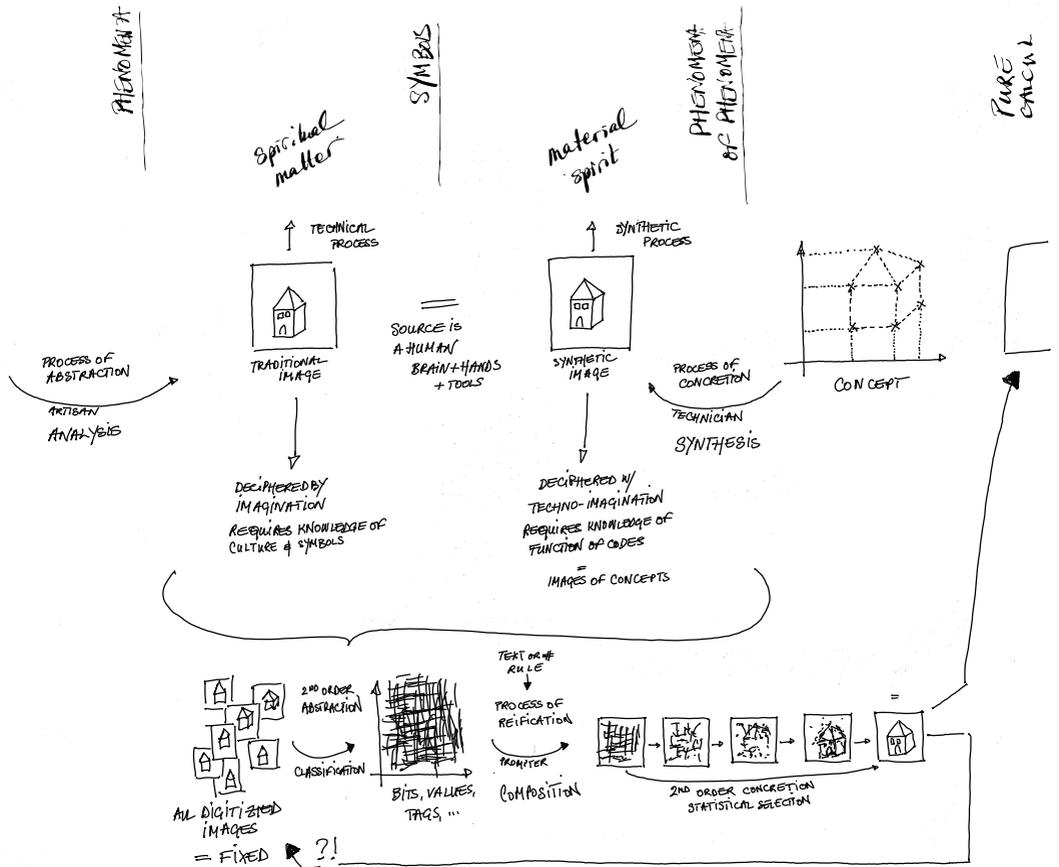
Fig. 8: Diagram of the visible and invisible status of the image in the technical process of imagination, inspired by readings of various texts by Vilém Flusser, May 2023.

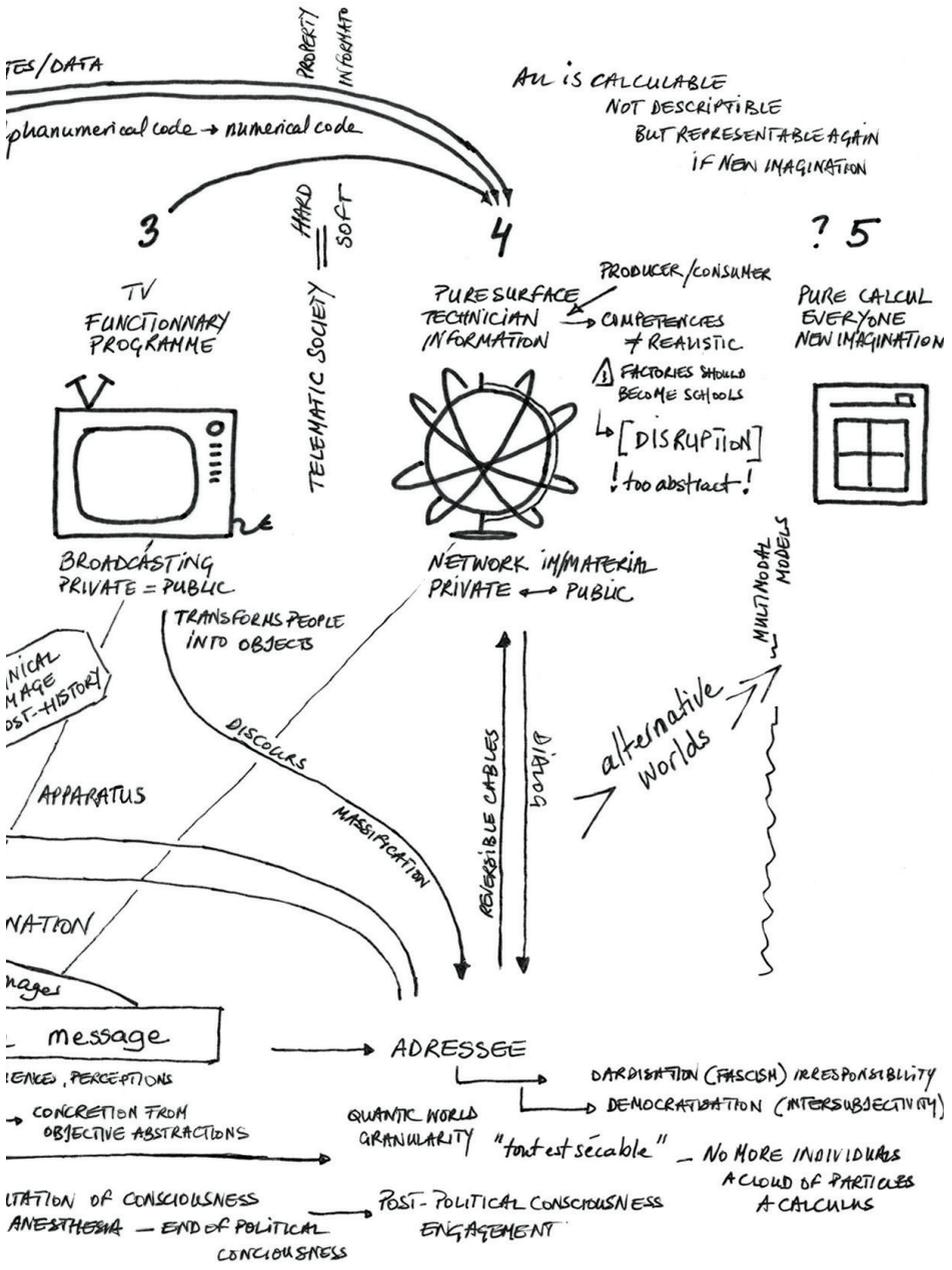


Next page - Fig. 10:
 Diagram laying out the 4 types of images as presented in Vilém Flusser's text "Images in the New Media" and various other texts of Vilém Flusser. As a question mark, the generative image - or 5th type - needs to be further investigated as part of the proposed collective research. First draft 2021, last iteration August 2023.

Proposal towards a New Imag(e)ination

Fig. 9: Diagram of the genealogy of the image in its different processes of abstraction and concretion, inspired by the readings of "A New Imagination" and various other texts by Vilém Flusser, as well as how it articulates the new generative image, April-August 2023.







Internet Culture
Between
Telematic Society
and Totalitarianism
of the Apparatus

A Flusserian Interpretation

Stephan Priefert

Stephan Priefert studied Information Systems at the University of Cologne where he worked as an assistant researcher at the Faculty of Management, Economics and Social Sciences. Here, his research focused on the exploration of formative factors influencing the evolution of digital platform business models. Furthermore, he is interested in the adaptation and further development of media formats in the context of recommender technology.

When looking towards the future of society, Vilém Flusser anticipated a society preeminently characterised by the “dominance of technical images.” Based on their properties, Flusser envisioned two very different possibilities for the character and structure of this future society shaped by the technical image: “Taking contemporary technical images as a starting point, we find two divergent trends. One moves toward a centrally programmed, totalitarian society of image receivers and image administrators, the other toward a dialogic, telematic society of image producers and image collectors.”¹ It is this prophetic sense that is without doubt an essential part of the contemporary appeal to Flusserian thought. And in fact, Flusser’s late works did appear on the verge of a series of technical developments that have to be understood as major changes to our societal communication structures. Yet our present reality, the Internet, does resemble neither of the two potentials envisioned in Flusserian theory.

1. Vilém Flusser, *Into the Universe of Technical Images*, (Minneapolis: University of Minnesota Press, 2011), 4.

Instead, when observing the present-day global Web and its culture, the supposedly “divergent” tendencies are actually found in a more intertwined way that is difficult to disentangle. On the one hand, we find a communication structure enabling dialog between the most diverse kind of people and communities, and giving access to almost unlimited amounts of information; while on the other, confronting us with a mainstream culture that, compared to the times of linear media, has not lost any of its dominance, it’s just truly global now. A user on YouTube does not need to be a great cultural pessimist to get a feel for Flusser’s concept of informational entropy, as they are being confronted with a virtually endless stream of recommendations like “Lamborghini Vs World’s Largest Shredder” or “Hydraulic Press Vs Lamborghini” by one of YouTube’s most successful creators Mr.Beast. The dominating technical images arising from the web did not open society to new horizons. As cultural theorist Mark Fisher put it: “It’s easier to imagine the end of the world than the end of capitalism.”² And not only in a metaphorical cultural sense has capital been able to keep its reign in the digital. It is still power that structures the Web. The agenda of the most cynical television producers from yesterday is greatly surpassed by the feed of technical images collectively created by the users of platforms like TikTok.

2. Mark Fisher, *Capitalist Realism: Is there no Alternative?* (Alresford, UK: Zer0 Books, 2022), 4.

How does the collective dialogue of society culminate in such an entropic mass culture? From a Flusserian perspective, this contradiction of our present situation seems difficult to explain. After all, Flusser emphasises the priority of the technological as the only culturally formative factor and expresses himself dismissively against approaches like those of the Frankfurt School. Therefore, the writer Richard Woodall concludes that in our modern ambiguous situation it is the blind spots

3. Richard Woodall, "Telematic Society," in *Real Life*, July 18, 2022, <https://reallifemag.com/telematic-society/>

in Flusserian thought that show their importance.³ Even if this criticism is justified, this text still represents an attempt to explain internet culture and its collectively created images in a technological, thus Flusserian way. In the same way, the thesis of this text claims that the entropic character of the images created by the dialogues of the web does lie in an increasing coordination of the dialogues through apparatuses. In the form of a stage model typical of Flusserian style, I illustrate here the history of the Internet as a dialogue increasingly coordinated by apparatuses.

A decentralised network enabled via common protocols

In its basic architecture as a global distributed Computer network whose communication is enabled by common protocols, the advent of the Internet represents in fact a technological leap towards the utopic Flusserian vision of society characterised by telematic dialogue. It constitutes an infrastructure enabling two-way telematic communication in all forms of technical images. As such, what phenomena of web-culture (technical images) can be derived from this basic architecture, coming from a Flusserian perspective?

By enabling all of society to share technical images of any form, early internet technology and culture did definitely put former authorities such as tv broadcasters or media publishers into question. Notable for this conflict are especially the debates and fights concerning file sharing sites, web spaces serving the free exchange/dissemination of copyrighted material. Yet, as in the case of pirated movies, the technical images shared on these pages still originated from the centres of pre-telematic mass culture.

The major liberation of telematics, however, lay for Flusser not only in the liberation from the previous broadcasters, but also from the entropic technical images transmitted by them. If the free network is only used to spread the images of mass media even further, society has not gained any freedom. Telematics should break the feedback loop of mass culture and so enable truly novel images. An internet-cultural phenomenon that probably comes closest to the Flusserian vision of images emerging from telematic play is that of the early internet meme. Images that can be the product of a long chain of creators, a product of a dialogical consensus. In them, a communication structure is depicted in which people dialogue with each other through images to produce ever new information, ever more improbable situations. As such, we can summarise the early web culture as a culture still impacted by the images of the pre-telematic culture, but where the mood of society is fundamentally shifting. Previously silent consumers are increasingly becoming active “players” engaged in the creation of the new. Society’s excitement is directed less and less towards the images of mass culture and more towards a collective creation of new images.

Dialogue coordination apparatuses

Thus far, we could observe an early internet culture, captivated by creative enthusiasm, whose parallels to Flusser’s vision of a telematic society are hard to oversee. For Flusser, the telematic society, caught in the enthusiasm for creation, represents an attempt to oppose entropic mass culture through collective creation. Flusser notes that

the telematic society would distinguish itself from earlier societies only insofar as its cerebral-net character has become conscious, enabling us to

*start consciously manipulating the net structure. The telematic society would be the first to recognize the production of information as society's actual function and so to systematically foster this production: the first self-conscious and therefore free society.*⁴

4. Flusser, *Into the Universe of Technical Images*, 92.

5. *Ibid.*, 102.

A society striving towards the creation of “images and music we never dreamed of, drawing on a wealth of information never dreamed of”⁵, all done by synthesising its information through telematic networking. It is the central thesis of this text, that this societal process of systematically synthesising information, has indeed taken place in some form, but also has provoked technological developments, not fully foreseen by Flusser in their importance. So does the telematic mission confront a society that, according to Flusser, has been zero-dimensionally dispersed by the previous mass media. Only networking can save the dispersed masses of postmodernity. “They can be ‘informed’.” From isolated people “new groups can be formed”.⁶ In zero-dimensions, where dialogue between every individual is technologically equally possible, a society striving for the informative, therefore improbable images, consequently, desires also the informative, therefore rather improbable dialogues, the improbable combinations. However, how can the zero-dimensional dispersed society coordinate itself into such informative dialogues? I argue that it was apparatuses, that only first allowed for an efficient coordination of this dispersed society into informative dialogues.

6. *Ibid.*, 68.

It is true that all combinations are foreseeable in principle, but some are more probable than others. It was the improbable combinations (the informative ones) that were wanted, and they only occur by blind chance after very lengthy—astronomically lengthy—computation. So, second, the play of pure chance had

to be accelerated to secure the desired combinations within a human time frame. This, then, is automation: to build an apparatus that speeds up chance events and to prescribe (program) it to stop when the desired coincidence has occurred.⁷

7. *Ibid.*, 73.

The great dialogues of the Web are neither the product of random chance nor of a collective consensus between those involved, but of apparatuses built to coordinate society into informative dialogues. Internet forums can be regarded as an early version of such a coordination apparatus. A program that can coordinate the dialogue about a certain topic, bringing together people who are interested in it, and giving this dialogue a unified structure. On the one hand, the individual contributions like comments or images can be understood as technical images that are exchanged in the forum dialogue. At the same time, the forum as a whole can be understood as a collectively created technical image.

The struggle towards new information, thus, also becomes a struggle for new coordination apparatuses. Apparatuses that enable the collective creation of technical images ever more efficiently and on an ever larger scale. For example, if we only look at Google Maps as a global restaurant map, we see a technical image that is only made possible by countless participants with their contributions such as reviews, pictures and further data. From this perspective, the Internet has given rise to truly undreamed-of images, yet less through the product of a collective consensus and more through the guidance of the apparatus.

This guidance of the apparatus is becoming more dominant with each new generation of apparatuses. In order to enable ever larger and more improbable dialogues, the apparatuses are becoming ever more

complex in their structure. Along with this increase in structural complexity goes a loss of functional complexity. The more efficiently the exchange of information is coordinated by a coordination apparatus, the less the dialogising actors coordinated by it can play against the coordination apparatus and create an image that differs from the image intended by the program. Especially apparatuses that coordinate the exchange between massive numbers of individuals are almost impossible to control. For instance, it is hard to imagine that with the Google Maps algorithm a fundamentally different image could be created than the one that already exists.

But the ever stronger guidance of the apparatus does not only increasingly restrict collective creation, above all it has the potential to fundamentally challenge the prior dynamic of the Flusserian Internet, as the collective dialogical creation of new information. From a Flusserian perspective, the ever more uncontrollable apparatuses open up the possibility of developing a dramatic momentum of their own. Thus, for Flusser, the loss of control over an apparatus means precisely that the apparatus can no longer be stopped: “[The] program becomes independent of human intention. It becomes autonomous and rolls on.”⁸ However, what dynamics can be recognized in the specific case of the increasingly autonomous apparatuses coordinating the Web’s dialogues? Where is the increasingly autonomously controlled Internet rolling? With the autonomy of the apparatuses “the original terms human and apparatus are reversed, and human beings operate as a function of the apparatus.”⁹ Therefore, it seems obvious that the originally inspiring motive of telematic dialogue, a creative involvement, is offered to an ever lesser extent by the increasingly automated dialogues, which seem more and more pre-determined in their outcome. So, how can the increasingly autonomous apparatuses still

8. *Ibid.*, 74.

9. *Ibid.*

10. *Ibid.*, 54.

motivate the zero-dimensionally dispersed individuals to participate? Contrary to the concept of “schöpferische Begeisterung” – an enthusiasm for the active creation of novel information – thus, an enthusiasm for the image yet to be created, Flusser describes for the pre-telematic society a passive form of enthusiasm between already existing image and human: “the images become more exciting the more excited the receivers are, and the receivers that much more excited the more exciting the images are.”¹⁰ Where communication on the Internet is becoming less exciting for its creative potential, it has to become increasingly exciting for its stimulating images and enthusiastic audience. Users on platforms such as Instagram no longer collectively strive for new information, their excitement is for the images already present on the platform and the audience they can reach through them. With the growing uncontrollability of the apparatuses, the active, creatively enthusiastic mood of the telematically networked society increasingly reverses itself into its passive opposite. The Web, dominated by autonomous apparatuses, no longer strives towards new information, but towards ever greater passive “happy communication.”

Recommender Systems

A technology that is both an outgrowth and a manifestation of the new dynamic is the recommender system, which reveals the apparatus rule over internet communication in all its drastic significance. As already discussed, in order to motivate participation, the increasingly autonomous apparatus is forced to offer individuals an ever more passive state of happiness. However, in the context of internet technology, which theoretically allows anyone to send and receive, a particular problem arises. According to Flusser, it is precisely dialogs that can endanger the state of passive contentment: “every

11. *Ibid.*, 65.

12. I consider an online multiplayer video game running on a server, just like a forum, as a program that coordinates a telematic dialogue between zero-dimensionally dispersed individuals (a coordination apparatus). A telematic dialogue that also results in new, collectively created images, the individual frames that are seen by the players. However, for instance, an online first-person shooter is commonly not a telematic dialogue striving for the creation of truly novel images. Its enthusiasm does not lie in what could potentially be collectively created, but rather in the already familiar technical images of the game. An exceptionally passively submitted to the program, telematic dialogue. Yet since the game still represents a dialogue between humans, the passive state of contentment is still dependent on the corresponding behaviour of the other players.

13. Charu C. Aggarwal, *Recommender systems*, Vol. 1. (Cham, CH: Springer International Publishing, 2016), 2.

dialogue is dangerous because it could awaken the unhappy consciousness from its sleep.”¹¹ If we consider an online multiplayer videogame, like the match of an online first-person shooter, as an exceptionally happy, meaning exceptionally passively submitted to the program, telematic dialogue, we can see clearly how it is in particular the behaviour of another player that can endanger one’s own happy, passive state of submission to the program.¹²

With the development of the recommender algorithm, the seemingly impossible is achieved: a dynamic form of communication in which theoretically any user can send and receive, yet without the need for any dangerous dialog. But how is this technical feat accomplished?

*The basic principle of recommendations is that significant dependencies exist between user- and item-centric activity. For example, a user who is interested in a historical documentary is more likely to be interested in another historical documentary [...] These dependencies can be learned in a data-driven manner [...] The larger the number of rated items that are available for a user, the easier it is to make robust predictions about the future behavior of the user.*¹³

In the case of recommender systems the fundamental function of the apparatus is no longer to connect humans, but to bring humans and images into an ever more enthusiastic relation. The telematic dialog is turned into a dispersed sending and receiving which is brought into an exciting relation based on previous data only via the program.

As such an alignment between image and human, Flusser already characterised communication in the context of pre-telematic mass media. Thereby, it is

fascinating how uncannily precise his description of communication between human and image depicts the communication dynamics found in recommendation systems:

However, the reception of technical images does not end the communication process. Receivers are not sponges that simply absorb. On the contrary, they must react. On the outside, they must act in accordance with the technical images they have received: buy soap, go on holiday, vote for a political party. However, for the interaction between image and person under discussion here, it is crucial that receivers also react to the received image on the inside. They must feed it. A feedback loop must appear between the image and the receiver, making the images fatter and fatter. The images have feedback channels that run in the opposite direction from the distribution channels and that inform the senders about receivers' reactions, channels like market research, demography, and political elections. This feedback enables the images to change, to become better and better, and more like the receivers want them to be; that is, the images become more and more like the receivers want them to be so that the receivers can become more and more like the images want them to be.¹⁴

14. Flusser, *Into the Universe of Technical Images*, 53-54.

A consensus between receivers and images is created. In the case of recommender systems, feedback and distribution channels are very closely and directly linked, and thus enable the creation of such a consensus between users and content much more effectively. This is amplified even more if the content to be distributed by the recommender system is user-generated content. In particular, however, it is the possibility of creating a personalised stream of content for each user that distinguishes recommender systems from the classic

distribution and feedback channel systems described by Flusser in the 1980s. Through this personalization of content, a consensus between the individual and the system can be achieved much more effectively at an atomic level, without the need to create majorities within the system. Filter bubbles are an example of this. Within a platform, different users may achieve a completely different consensus with the system regarding its content. Nevertheless, the consensus does not lose its elementary meaning. Despite a wide variety of content for a wide variety of users, the underlying imperative message must remain the same: the call to further engage with the system. A deviating message would lead to a drying up of the feedback channels essential for the quality of the distribution channel, the process of alignment of receiver and image would be interrupted. In order to protect this elementary consensus between user and system, to “reduce the addressee’s criticism to a minimum”, Flusser mentions various methods, such as an “speeding up of the sequence of images” or an “inflation of images that makes freedom of choice impossible”.¹⁵

15. Vilém Flusser, *Writings*, (Minneapolis: University of Minnesota Press, 2002), 72-73.

If we look at the dominant platforms of the web, such as YouTube and TikTok, we still can recognise many dialogic elements, such as comment sections, but the general evolution of the web’s central platforms shows how much we are subjecting our internet communication more and more to the recommender’s logic, the human-image logic. Mark Zuckerberg’s vision of the Social Graph has not prevailed. If we look at the development from YouTube to TikTok, we see how the recommender system has become the central element of the platform. Search engines have gone out of fashion. Short videos craze enables human-image interaction at unprecedented speeds. On a platform like TikTok, there is no longer an alternative to the recommendation, the

16. Flusser, *Into the Universe of Technical Images*, 59.

17. Vilém Flusser, *Kommunikologie*, (Frankfurt: Fischer Taschenbuch Verlag, 2007), 225. Despite the existence of a recent English edition, this quote has been taken from the German edition and directly translated by the author, so that it corresponds more closely to the original wording: "[...] im gegebenen Fall ist es methodisch einfacher, in der *äußeren Lage* ein Spiegelbild unserer *inneren Zerrissenheit* zu erblicken. Denn dann versteht man besser, warum wir unsere äußere Lage geradezu nicht durchschauen wollen - weil wir fürchten, uns selbst zu entdecken. Stellten wir beispielsweise fest, warum wir im Kino ganz anders als in der Schule empfangen oder warum wir uns im Laboratorium ganz anders als vor dem Fernsehschirm verhalten, bestünde die Gefahr, daß wir *uns unserer Schizophrenie* bewußt würden." It is important to note that Flusser makes this formulation in quite a different context. What makes his wording here still relevant to me, is the general idea expressed, of considering the external media conditions as a reflection of something internal.

recommendation becomes an imperative to engage. In the logic of the recommender system, players become perfect functionaries who unconditionally fulfill their service to the general passive enthusiasm. On platforms dominated by the recommender system such as TikTok or Tinder, hardly anything other than hollow excitement is created collectively. Any artist who tries to inform society on TikTok or Instagram is lost. A message that is not subject to the general program of collective mental dispersion will never reach a recipient.

The total replacement of interpersonal telematic dialogs by hyperdynamic human-image communication does not merely mean the end of collective creation, but even the concrete dismantling of existing information and complexities. The image adjusts to the person, whereby it becomes his reflection, and the person adjusts to this image, whereby he becomes a reflection of himself, whereupon the image in turn adjusts to the now distorted person. "The interaction between image and person is marked by entropy tending toward death."¹⁶ In TikTok's images, be it hydraulic presses destroying commodities, NPC streamers, heads in toilets, or even video collages of anything stimulating (sludge content), an unprecedentedly blunt pictorial language is revealed, a language only stimulating the passive human being via primitive stimuli. Images that are adapting to the increasingly unconscious state of their viewers and pushing it further.

At the end of his work *Kommunikologie* Flusser uses an intriguing formulation, when he states how our "external situation" can be seen as a reflection of our "inner disruption," through the recognition of which we can become aware of "our own schizophrenia".¹⁷ Just as a movie can only be part of the communication on TikTok when it is fragmented into countless snippets,

18. Gilles Deleuze and Félix Guattari, *Capitalism and schizophrenia*, (Minneapolis: University of Minnesota Press, 1983). Furthermore, an essay by Jonah Peretti offers an exceptionally worthwhile perspective on the 'schizophrenizing' nature of visual media: Jonah Peretti, "Capitalism and Schizophrenia," in *Negations*, Winter 1996, https://negations.icaap.org/issues/96w/96w_peretti.html

19. Vilém Flusser, *Kommunikologie*, 225. This quote has been translated by the author: "'höllischen' Katastrophe des autonomen Totalitarismus."

20. *Ibid.*, 229. This quote has been translated by the author: "[...] aus der Menschheit eine den Apparat fütternde und sich von ihm nährende Masse."

the personality of the user on TikTok is dispersed into its bare impulses. In this sense, TikTok might be the most powerful instrument of schizoanalysis to date.¹⁸ However, from a Flusserian perspective, there is no liberation in this schizophrenia, only complete subjugation, the "hellish catastrophe of autonomous totalitarianism."¹⁹ Under the enthrallment of recommender algorithms, "humanity becomes a mass that feeds the apparatus and is fed by it."²⁰ All forms of information and complexities of society, even personalities themselves are dissolving.

To conclude...

Considering internet communication, in its myriad of different forms and in its global dimensions, the attempt made here to capture the Web's history in its entirety may well be perceived as quite reductive. And indeed, as noted initially, Flusserian theory leaves us with serious blind spots in our understanding. For instance, any view toward the highly capitalised Internet and its development, that does not reflect such fundamental dynamics as venture capital funding or the "creator economy", just can never be regarded as complete. And still, the interpretation chosen here does prove how much Flusserian communicology can provide for a truly macroscopic and yet compact view of internet culture and thus enable a narrative towards the Internet and its history. I believe that it is the development of such narratives that takes a vital role in the shaping of a collective awareness towards our situation, enabling a sensible utilisation of internet technology.

The Double Black Box of AI

Or: Playing the Apparatus

Anne Braune-Vásquez

Anne Braune-Vásquez is an artist and a researcher. After studying photography, she started her PhD in media studies in 2021. In her research, she focuses on photography as evidence for conspiracy theories on social media. Furthermore, she teaches classes on memes and online culture. In her artistic practice, Braune-Vásquez approaches the medium of photography regarding its authenticity and believability in the context of conspiracy theories as well as her own family history.



Fig. 1: r/midjourney, The Pope Drip ,2023, https://www.reddit.com/r/midjourney/comments/120vhdc/the_pope_drip/

In April of 2023 a series of images appeared on different social media platforms: Pope Francis strutting along the sidewalk wearing a white shiny puffer coat and holding a takeaway coffee mug in his hand. People were astonished about the pope's appearance. And missed the fact that the image was not photographed but generated utilising a large language model (LLM), colloquially known as artificial intelligence (AI).

1. For the most part taking place on social media.

2. Mia Fineman, *Faking It: Manipulated Photography before Photoshop*, (New York, New Haven: Metropolitan Museum of Art, Yale University Press, 2012); Tom Gunning, "What's the Point of an Index? Or, Faking Photographs" in *Nordicom Review* 25, no. 1–2 (2004): 39–49. <https://doi.org/10.1515/nor-2017-0268>

These and other images led to the age-old dispute¹ about believability and authenticity of photographic images – and those images that look photographed but are actually manipulated. On the one side are those that claim AI-generated images are leading to a distrust of images in general. Others claim AI-generated images do not affect on the distrust of (photographic) images. However, photography is a medium that was manipulated and influenced from its invention on.² Therefore, it is no new phenomenon not to be able to fully trust photos.

The issue with the truth claim

This context is necessary to understand the so-called truth claim of photography. The truth claim states that a photographed subject or object needs to have existed at some point in time to have been photographed. Thus, if a subject or object is seen in a photo or a photographic image, it must have existed to be photographed. The subject or object is a direct reference to reality. This understanding of the medium goes back to its early days: One of the inventors of photography, Henry Fox Talbot, published a book using his own photographs in 1844, only a few years after his first so called Talbotypes. The book is titled *The Pencil of Nature*, suggesting the camera draws with light. This might have been the understanding back then, but that changed over time.

During a 1950 symposium held at the MoMA (Museum of Modern Art, New York) titled “What is Modern Photography?” the organiser, photographer, and curator Edward Steichen invites the current greats of photography.³ Among the guests is Edward Weston, who says about his photographic practice “I don’t copy nature but arouse connotations, conveying abstract ideas.”⁴ Weston makes it clear that he does not perceive photography as a purely pictorial medium. Rather, he sees photography as a means of recording his subjective perception of the outside world.

3. “What Is Modern Photography?” Museum of Modern Art, New York, October 20, 1950. Listen to it on WNYC New York Public Radio, <https://www.wnyc.org/story/whatis-modern-photography/symposium>

4. Madeline Ferretti-Theilig, “Rethinking Photography” in *IMAGE Zeitschrift Für Interdisziplinäre Bildwissenschaft* 33, no. 1 (2021): 17, <https://doi.org/10.25969/MEDIAREP/16330>

While Weston holds the perspective of the photographer, semiotician Roland Barthes addresses the recipient’s position. He takes photography as its own language. In his writings, Barthes deals primarily with advertising images and illustrations, before exclusively writing about photography in *Camera Lucida* (1980). He differentiates between *studium* and *punctum* in his consideration of images. The term *studium* refers to a photograph that does not evoke any reaction in the recipient. In contrast to this is the *punctum*. This describes a detail in the

5. *Camera Lucida: Reflections on Photography*, (New York: Hill and Wang, 1981).

image that elicit an emotional reaction. The *punctum* is added to the image, yet it has already been there.⁵ Through the punctum, a quality beyond the photograph can be achieved. Andrew Benjamin summarises the punctum as follows:

*The quality that allows for the excessive, the quality that is operative but exceeds the codes of meaning the 'punctum' are identifiable elements of a given work. And yet, they are also dependent upon the relation between a given viewer and the work.*⁶

6. Andrew Benjamin, "What, in Truth, Is Photography?" in *Oxford Literary Review* 32, no. 2 (2010): 195, <https://doi.org/10.3366/olr.2010.0103>

Thus, Barthes is more interested in the (emotional) effect photography has, not its representation of reality. These examples clearly show that the view of the medium photography changed over time. This is connected to technical and societal changes, to which photographers and theorists reacted.

And today? Today we carry a powerful camera in our pockets and produce images non-stop. It's a tool for almost everyone to document their subjective perception of reality. If the train is late, I'll send a snapshot of the display panel to my friend who is waiting for me instead of texting the information. As the AI-generated image of the 'drippy pope' shows, we don't generally question the images we see online. It would be too exhausting to stop and think after each image we see, even though it would be necessary – at least in some cases.

To summarise, the truth claim of photography cannot be considered entirely true. However, it cannot be fully neglected either. Even though the medium is susceptible to manipulations of different kinds it still holds a small part of something that has been. A photographic image does refer to the scene depicted, or the person portrayed, but it never shows a whole. Manipulation excluded, photography is highly influenced by different factors, such as a photographer and/or camera being

at the scene, the used lens and shutter time, the frame selection and so on. A photo is always a spatial and temporal excerpt. This leads to our societal handling of the medium: Academic and photo-theoretical discourse agrees that photography should not be fully trusted and believed. In contrast, I see the daily use of photography. When seeing an image (photographic or appearing to be photographed) on social media or our favourite messenger app we usually don't question the source of the image or if it is manipulated or not. On the contrary, we tend to believe it – or not think of its trustworthiness at all – and then move to the next one. This is why it took some time until people realised that the pope did in fact not wear a white puffer coat.

So, what has AI image generation to do with Vilém Flusser? Following his argument, the camera as an apparatus is a black box.⁷

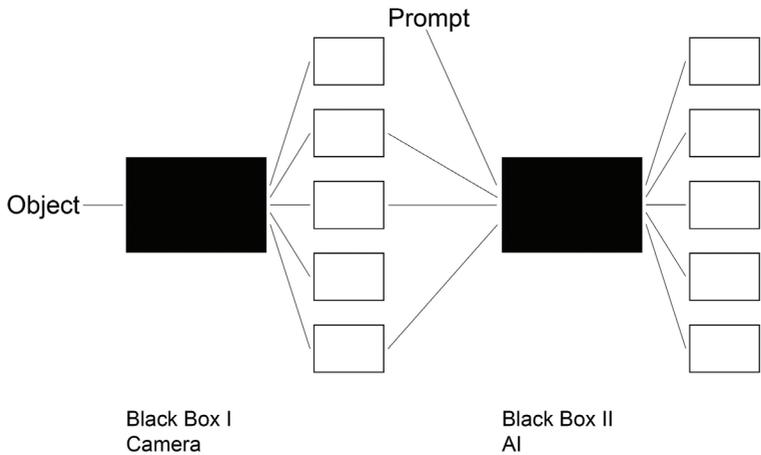
7. Rodrigo Maltez Novae, "Apparatus" in *Flusseriana Glossary*, FlusserWiki, <https://wiki.flusser.club/doku.php?id=apparatus>

The black box works like a complex technical system, which can only be decoded by the specialists who programmed it. This creates the impression that apparatuses are autonomous and independent. All we know about the black box is that it works when it is activated, but we don't know how it works; however, this is enough for us, since we are mere functionaries or operators. The black box nature of apparatuses turns them into toys – and it is only in play that we can explore their infinite possibilities.⁸

8. Norval Jr. Baitello, Black Box in *Flusseriana Glossary*, FlusserWiki, https://wiki.flusser.club/doku.php?id=black_box

In this following of the program or playing with the apparatus, Flusser sees a problem. The user (functionary), unable to understand what happens inside of it, can still use the black box. If the camera is used as intended, the user follows the program predefined by the camera. Following the system means merely operating it and not deciding independently. He suggests instead to play against the apparatus. When AI-generated images come into play as well this

means there are now two black boxes at work. The first black box, the camera, produces images. The output is then partially introduced into the algorithm underlying the AI. A textual prompt is added, and the AI produces new images based on the first black box's output.



Playing with the apparatus

Fig. 2: Anne Braune-Vásquez, *Double Black Box*, 2023.

9. The full conversation was held in one sitting.

Intrigued by this discussion, I wanted to apply this theoretical discourse by engaging with the AI directly. Not knowing where to start, I first began to follow the program using ChatGPT version 3.5.⁹ I asked the model about Flusser and the truth claim of photography. In my imagination, following the program would lead me to understand it better and play against it more easily (If you read carefully you might think 'But the Black Box is obviously not intended to be understood' and you would be right). According to Flusser, the algorithm underlying ChatGPT is an apparatus. Thus, it is a black box and playing against it was not necessarily successful.

I first asked the machine, "What does a trustable image look like?" The answer it generated was quite

10. Not no manipulation.

11. The following citations are from the conversation with chatGPT which can be read in full online at FlusserWiki.

general and gave me some characteristics, a source, a minimum of manipulation¹⁰ and “Consistency with Descriptions.” The latter meaning that the image and the accompanying description or context should be consistent. ChatGPT also mentions the importance of “Contextual Information.”¹¹ In conclusion that would mean that the image alone is not believable or readable, but always needs some kind of contextualization to be understood correctly. Therefore, as my next question I chose: “If there is always context needed does that mean a photograph alone cannot be understood properly?” I argue that yes, a photograph needs context to be understood properly. If the recipient does not have the necessary background knowledge, they needed additional information to fully grasp what the image is showing. Moreover, the effect an image has on its viewer differs depending on the context. ChatGPT’s answer was detailed yet general. It states that while images can convey emotions and general visual information, context “allows for a more accurate interpretation.”

The third question, if photography can be “completely true”, was answered in a similar manner as the ones before.

A photograph, in its essence, captures a moment in time and represents a visual record of what was present in front of the camera at that specific moment. From that perspective, we can say that a photograph can be a representation of truth or reality. However, it’s essential to understand that photographs can also be influenced by various factors that may impact their accuracy or truthfulness. Here are some considerations.

After the considerations (e.g. the photographer’s perspective, the limits and the selectiveness of the medium) the truth of photography is partly relativised. It is “important to approach photographs with critical thinking” and to take further sources as well as the context into account.

Questions four and five regarded the everyday use of photography. As I stated in the beginning, in my research I find that the everyday understanding of photography highly differs from the theoretical understanding. Logically most people are aware of the limits of the truth claim but choose to use photography as a trustworthy tool for communication. ChatGPT did not seem to fully understand my questions but made an important point: “The level of trust placed in photographs in everyday communication can vary depending on the context, the relationship between the communicators, and the perceived credibility of the source.”

After working out what ChatGPT had to say about photography in general, I turned to a new topic: the question whether an AI-generated image is a representation of reality and how this ties into photography’s connection to reality. According to ChatGPT an AI-generated image is not an inherent representation of reality – suggesting that photography is. But it may appear realistic. The differences between an AI-generated image that looks like a photo and a digital photo are “Authenticity and Representational Accuracy” and “Trustworthiness and Verifiability”, among others. The AI-generated image does not show real world events, while digital photography does. According to this, digital photography generally evokes more trust. Herein lies a problem: If we cannot, at least not at first glance or at all, distinct photographic and AI-generated images, where does this take us? Do we run the risk of trusting an AI-generated image thinking it is photographed or do we become more sceptical of digital images in general? I believe the latter would be preferable.

Being asked “Does that mean a digital photo is more trustworthy than an AI-generated image that looks like a photo?” ChatGPT started repeating itself and again listing all the aspects that make photography

trustworthy. And again, there was a relativization that “[i]t’s important to note that the trustworthiness of any image, whether digital or AI-generated, should be evaluated critically and in consideration of specific circumstances.” This structure of the replies keeps the same during the whole conversation. To explore the limits, I asked whether AI-generated images that look to some extent like a photograph are thereby made trustworthy. If photography can be trusted – be it with restrictions – and AI-generated images are less trustworthy that would still make them trustworthy. The answer is a clear ‘it depends’. This answer implies a new addition: Whether the AI-generated image is marked as such and the recipients are made aware it can function as a ‘visual aid’ or ‘illustration’. If this is not the case, it might be misleading. To take it to the extreme I asked if an AI-generated image that looks like a photo could be considered a trustworthy document. The answer was vague. ChatGPT names characteristics that were named before in connection to photography’s trustworthiness, such as source, verifiability, and context. However, I suppose this answer is the closest to a ‘no’ one could get.

Switching the topic to something more Flusser related, I asked ChatGPT how I can play against the AI. The phrasing was not understood by the AI, since it listed different games. Afterwards, I asked for Vilém Flusser’s theory of play. According to the answer, play is characterized by creativity, imagination, and openness, within a set of rules. These characteristics are repeated in the next answer to how Flusser would play against the AI. ChatGPT also reminded me that Flusser passed away before generative AI models were broadly available. Thus, it is only speculating how he would interact with it. Afterwards, I asked ChatGPT to explain how I could play against an (image-generating) AI following Flusser’s ideas. Again, it listed creativity, reflection, openness, as well as using play as critique.

12. Although the examples weren't too bad.

After a list of examples I claimed that I did not think ChatGPT is able to comprehend Flusser's play theory.¹² In the answer ChatGPT turned my claim around saying:

Remember that Flusser's work provides a philosophical framework, and its application to specific situations like playing with AI-generated images requires personal interpretation and creativity. I encourage you to further explore Flusser's writings to deepen your understanding of his theory of play and its application in engaging with technology and images.

My final question was if an AI would be considered a black box by Flusser. The answer was a clear "yes" and ChatGPT went into further elaboration:

Flusser's philosophical framework invites individuals to be active participants in the communication process, challenging the black box and exploring the possibilities and limitations of the apparatus. By engaging critically with AI systems and understanding their role within the broader apparatus of communication and technology, individuals can assert their agency and navigate the complexities of AI-driven processes.

The answers I was given were – although factually correct – overall quite unsatisfactory and vague. At several points during the conversation they started repeating and circling around the same claims. Mostly, the answers were a listing of different aspects regarding the questions. In a second step, what was said was put into perspective or even relativized to a certain extent. This is of course due to the programming of the AI model. And this is why it is hard to play against it.

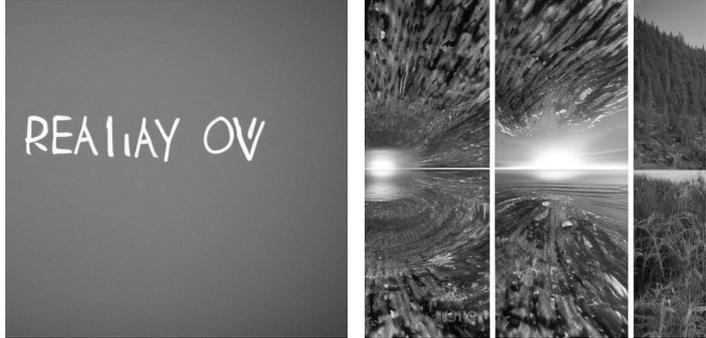
Playing against the apparatus

In a second step, I turned to AI image generation. Using Stable Diffusion v1.5 I had images for different prompts

Anne Braune-Vásquez

Fig. 3: Anne Braune-Vásquez, Prompt: *A Representation of Reality*, generated with Stable Division v.1.5, 2023.

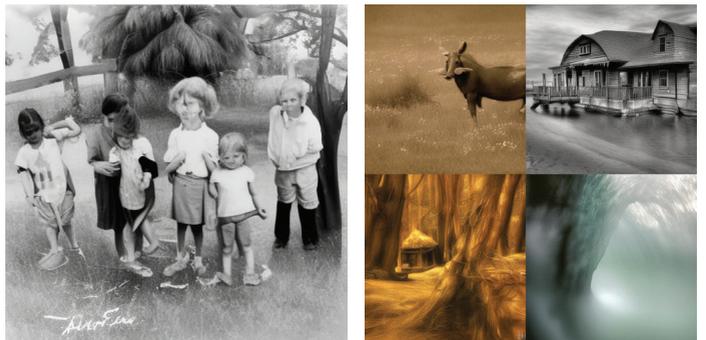
Fig. 4: Anne Braune-Vásquez, Prompt: *A photo is a representation of reality*, generated with Stable Division v.1.5, 2023.



generated, all connected to my previous discussion. The images for the prompt “A representation of reality” were even less helpful than the ones for “A photo is a representation of reality”. The versions of the second prompt all three showed a landscape in some circular motion.

Fig. 5: Anne Braune-Vásquez, Prompt: *An Authentic Photograph*, generated with Stable Division v.1.5, 2023.

Fig. 6: Anne Braune-Vásquez, Prompt: *A Trustable Photograph*, generated with Stable Division v.1.5, 2023.



Another try was about photography's authenticity and trustability. While the images for the prompt “A trustable photograph” did not interest me a lot, the image for “An authentic photograph” struck me (Barthes would speak of the punctum): It's a black and white image of a group of children standing on a meadow. Both their faces and bodies seem to be melting. The image resembles photos taken from private family albums, but the AI's mistakes lead to its uncanniness.

After the first excitement, I took a step back and thought about what interests me in the images. You can quickly tell that they are not photographed although they are meant to appear like they are. The flaws of the algorithm are clearly visible. Having these images generated feels like beating the AI at its own game. Beating it, but still playing with and not against it. But how does one play against the AI? The function of the AI is to generate images. Generating them for this experiment or personal amusement is still following the apparatus' rules. Maybe one solution lies in emotionalising the AI and its output. What interests me in the images? What is their punctum? For me, it is their eeriness and the faultiness.



Fig. 7: Anne Braune-Vásquez, Prompt: *Vilém Flusser Playing against the Apparatus*, generated with Stable Division v.1.5, 2023.

Fig. 8: Anne Braune-Vásquez, Prompt: *Vilém Flusser Holding a Black Box*, generated with Stable Division v.1.5, 2023.

One particular image that piqued my interest is of two Flussers leaning over a pool table. Together with the prompt “Vilém Flusser playing against the apparatus” (an image needs context) it reads like Flusser is playing against himself as if he were the apparatus. At the same time, he seems to be advising himself about his next move.

Another image is of Flusser looking into the black box. At first glance, he holds it up to his face to see inside. But soon the recipient will realise Flusser's face morphs into the box. The box and his face morphing into one.

Additionally, there are the consideration of specific circumstances, large hands holding the box that are not connected to the body but coming from outside the frame. The black box has text on it that might be supposed to read 'black box' but rather looks like 'Blk click'. Again, it appears to me that Flusser and the black box are intertwined. He is the black box, and it is he.

AI image generation is a wonderful plaything. This experiment shows the importance of the image's context (the prompt) and the recipient (me), who interprets the image.

In conclusion, both photography and AI image generation are to some extent based in reality. Photographs do show an excerpt of reality but only a small part that needs to be contextualised and understood. AI generated images are based on training data, usually photography.¹³ Therefore, image models do not generate the same version of reality as photography does. Instead, they produce a second-hand reality. Maybe even third-hand. But they do give recipients the opportunity to analyse and interpret the images. However, it is important to note that both cannot be fully trusted. Recipients always need to question an image. However difficult this may be.

As far as playing against the AI goes, I am still unsure if I have found a way yet.

13. In this context, it is important to mention that various photographers and companies are unsuccessfully fighting against their images being used as training data. One way is to 'poison' the image. See Melissa Heikkilä, "This New Data Poisoning Tool Lets Artists Fight Back against Generative AI" in *MIT Technology Review*, October 23, 2023, <https://www.technologyreview.com/2023/10/23/1082189/datapoisoning-artists-fightgenerative-ai/>

Flusser Rock Party

Max Wileschek & Oskar Helcel

Max Wileschek Max Wileschek lives and works in Leipzig. He is an engineer for media technology. After completing his master's degree in applied media and cultural studies, he became a research assistant for the "H2 HUB in Saxony-Anhalt" project at Merseburg University of Applied Sciences, where he develops XR Serious Games for continuing education scenarios. His research focus is at the intersection of science, art and technology, with a particular interest in immersive media technologies. Building on his master's thesis on "Digital Literacy: Vilém Flusser's Tactile Understanding of VR", he is preparing for his PhD project on "Tactile Digitality".

Oskar Helcel is an audiovisual artist, photographer and performer. He graduated from the Department of Photography at FAMU in the studios of Marketa Kinterová and Hynek Alt. He has had several solo and group exhibitions, such as PAF Other Visions, Gallery XY, 2022; Glajcha, Josef Sudek Studio, 2022; Tekoucí Dům, Galerie Jelení, Prague, 2020; Argumented Reality, online exhibition, NFA, 2021; Houses of Culture, Centre and Foundation for Contemporary Art Prague, in collaboration with Martin Netočný, 2019. He received an honorable mention in the European art thesis competition START POINT Prize 2020. He is a co-founder and active member of the theater group Akolektiv Helmut.



Project description

We, Max Wileschek and Oskar Helcel, as students of the Vilém Flusser Summer School 2023, created a short intellectual game on the occasion of the 113th birthday of Vilém Flusser, which took place at that time on May 12th. The course of the game was as follows:

Participants appear at Vilém Flusser's birthday party and they are asked to give a present to him in the form of a question, which we assume is the best gift for a philosopher. Each participant scans a QR code with an image of Vilém Flusser and a task: "What question would you ask Vilém Flusser at his birthday party?" Participants are then asked to find a stone. During this search, they think about what question to raise. After that, each participant writes the question on the stone with a pen and throws the stone to the pithole which represents the grave of Vilém Flusser and is located in front of Flusser's house in Robion, a town in southern France where he spent the last 10 years before his death in 1991. Obviously, our game is open, you can throw stones of various sizes, from various distances with a variable force.



This game should provoke participants' imagination of how they would interact with an already dead but mythologised philosopher in real life at a real birthday party (if they were invited). Therefore this game deepens our thinking about Flusser's predictions of how society could possibly look like in the future. That future is now our present. Our post-capitalistic telematic society is facing not only overpressure of technical and operational images, but also an unpredictable development of AI technology.

However, there are topics which Flusser did not predict so well. One example of that is the subject of Max Wileschek's text: the total ignorance and lack of feminist approach (which is now taking the lead not only in media sciences) hidden under the ageless philosophical concepts of today's society.

Ideas' tab

1	jewish culture → stone heap on grave → wall/paper/crying wall	→ grave/birthday → happy/sad → back/front of the stone
2	gesture of giving →throwing stones (negative connotation)	→ critique → wish fountain → in direction to his house
3	poison	→ gift(poison)/present
4	birthday party	→ "open the letter later" → think of unspoken mystery you will write on the stone
5	digital stone heap (discord)	→ analog stone heap
6	QR Code/AR Picture	→ young picture (as marker) to old AR picture (benjamin button) → golden plate? link for visitors? next Flusser schools?
7	relieving activity	→ throwing a stone bodily instead of thinking just brainly, just do something
8	no ending pont like essay	→ feedback, critique
9	postmodern view	→ start by yourself → questioning objectivity and big stories → end of history

1. Scan the QR Code.
(directed to: <https://flusserbdays.glitch.me/>; you can also type the URL manually in your browser; use Google Chrome).
2. Give the browser access to your camera.
3. Now focus on the picture of young Vilém.
4. The magic is done!
5. You can touch the 3D-Model to pinch and roll, zoom in and out.

This tab is a free form of thoughts which came to our mind through the process of making our project. It includes possible connections and relations associated with the main elements: giving, questioning and death.





Would you be afraid of being canceled today?

1. Rainer Guldin and Gustavo Bernardo, *Vilém Flusser (1920-1991): Ein Leben in der Bodenlosigkeit. Biographie*, (Bielefeld: Transcript Verlag, 2017), 5, Translated from German by the author.

2. *Ibid.*, 235.

On the question of whether to throw stones or lay them down

The true tribute owed to the dead is to treat them as if they were still alive¹

Vilém Flusser

When we introduced our project of preparing a gift for Vilém Flusser's upcoming 113th birthday, I was particularly struck by Baruch Gottlieb's reference to the ambiguity of the English term "gift." In German, the term Gift literally means something like poison. A poisoned gift could represent a critical question that points to the gaping discrepancy between Flusser's theory and his own actions. The gift could be a biting question that has been on the tip of one's tongue all along at the hypocritical birthday table of one's unloved encroaching uncle. But this poisoned gift never really wants to leave the opening of one's mouth because of the unspoken power relations. Thus came the idea of giving each Summer School participant the chance to ask a question without having to be exposed in front of their peer group. Like the money envelope that was slipped to you by your grandmother at an unseen moment on your birthday, to be opened later in the day.

One question that has preoccupied me ever since I began studying Flusser's writings is the applicability of his theories today. If his theories were a popular film, one could also speak of how well they have "aged." Certainly, his propositions could be deconstructed and such literal assumptions could be found that would warrant criticism. For example, the description of language as "a struggling mistress [...] to be raped and seduced at the same time."² Thus, his longtime friend and contemporary Philipp Ingold still remembers "embarrassing appearances [and] Vilém's pushy air of

3. *Ibid.*

authority in the presence of women. Thus he boasts of being an author who writes his texts like a ploughing farmer: The author must rip up the earth like a plough, just as the man rips up the woman in sexual intercourse".³ Yet it is not so much the obvious repulsiveness of the author that could cause considerable displeasure from today's point of view.

*Anke Finger (AF): Did he help you with the mundane?
Edith Flusser (EF): No, no. He couldn't, he couldn't.
AF: Well, boiling an egg, or holding Dinah ...
EF: (laughs) No, he was so unworldly, he was completely out of it.*⁴

4. Anke Finger,
"Erinnerungen an Brasilien
- ein Interview mit Edith
Flusser. Teil II. 29. Juni
2007," in *Flusser Studies*
07, (November 2008): 4,
<https://www.flusserstudies.net/archive/flusser-studies-07-november-2008>.
Translated from German
by the author.

5. Vilém Flusser,
"Altweibersommer," in
Flusserbrasil, (1991): 2,
<http://flusserbrasil.com/art582.pdf>

6. Donna J. Haraway,
"Situierendes Wissen. Die
Wissenschaftsfrage im
Feminismus und das
Privileg einer partialen
Perspektive," in Donna
Haraway, *Die
Neuerfindung der Natur.
Primaten, Cyborgs und
Frauen*, (Frankfurt/New
York: Campus Verlag,
1995), 74.

So the aim of my criticism is not about what was said and written by Flusser, its focus lies more on the unwritten and undiscussed topics, which may be left out by him on purpose. Going beyond this at a more abstract level it is a question to what extent the writings of an "old man"⁵ can be assessed nowadays, where an intersectional critique of science is inevitable. Even though the feminist claim of diversifying science finds its theoretical counterpart in suspending transcendental objectivity for the recognition of multiple points of view and therefore in accepting multiple ways of gaining knowledge.⁶ Interestingly Flusser finds out the same conclusion for epistemology in the post-historical point universe of digitality.

However, like other cultural-philosophical representatives of this era, he visibly found it difficult to establish any kind of connection to feminist theory, which certainly took place, if not within the same theoretical horizon, then at least within the same historical horizon. The writings of Donna Haraway from the 1980s can be cited as an example. In her famous Cyborg Manifesto, similar to Flusser's phenomenological essays on the invalidity

7. Vilém Flusser, *Vogelflüge. Essays zu Natur und Kultur*, (München/Wien: Carl Hanser Verlag, 2000).

8. Carmen Hammer and Immanuel Stieß, "Einleitung," in Donna Haraway, *Die Neuerfindung der Natur*, 27.

9. Vilém Flusser and Louis Bec, *Vampyroteuthis infernalis*, (Berlin: European Photography, 2018).

10. Donna J. Haraway, Unruhig bleiben. *Die Verwandtschaft der Arten im Chthuluzän*, (Frankfurt/ New York: Campus Verlag, 2018).

11. Alena Wagnerova, "Edith Flusser," in *Wagnerova, Alena. Prager Frauen. Neun Lebensbilder*, (Mannheim: Bollmann Verlag, 1995): 221. Translated from German by the author.

12. The german word for Indian Summer - *Altweibersommer* - literally means old broads summer.

13. Vilém Flusser, "Altweibersommer", 1. Manuscript from *Flusser Brasil*, <http://flusserbrasil.com/art582.pdf>. Translated from German by the author.

14. *Ibid.*, 4.

15. *Ibid.*

of the pair of opposites nature and culture⁷, she also undermines their separation as the central premise of the modern relationship to nature.⁸ It is all the more interesting, that the tentacles of cephalopods spun by Flusser in collaboration with mulberry lover Louis Bec in *Vampyroteuthis Infernalis*⁹ spill over not just into our dinner plates at Café de la Poste but also in Haraway's actual narratives about the Chthulucene which are also oscillating between fact and fiction.¹⁰

For me there was never the woman problem, because there wasn't for my husband. We lived one for the other. For my daughter, it is a problem [Dinah, author's note]. I am told that Vilém was very different from the German men. He did not know the slightest arrogance towards a woman. That is why I was spared from it. When people talked about women's problems, it meant nothing to us. We loved each other. My husband respected me, and he transferred this respect to other women.¹¹

In "Indian Summer"¹² a late essay which reads in parts like a case study for a cringeology to be developed, Flusser states that "women, unlike primate females, are in constant estrus, [which gives] the relationship between the two sexes its peculiar human character."¹³ However a few pages later he makes the concession to the "vermin of women's oppression gnawing at the root of civilization."¹⁴ Furthermore, he concedes especially to post-menopausal women over 40, that they are one step ahead of men on the path to becoming human, since they have freed themselves from their biological function of childbearing and are now able to produce an "actual human concept of love and an actual human experience of love."¹⁵ Even though Flusser's essay falls into the trap of essentialisation, the declaration of love to his wife Edith, which is not only visibly inscribed between the lines, but is also named as "a song of praise

16. *Ibid.*

to women, and especially to the beloved,"¹⁶ one should strike conciliatory tones. Last but not least, Irmgard Zepf, who tried to place the essay in an art pedagogical women's book, decidedly pointed out that Flusser was not a macho man despite his dominant effervescent manner.¹⁷

17. Guldin and Bernardo, *Vilem Flusser (1920-1991): Ein Leben in der Bodenlosigkeit*, 313.

*Once in Paris, when they decide to go to a synagogue on Yom Kippur to celebrate the day, Vilém is admitted to the circle of worshippers like an eminent rabbi. He is ushered to the front of the line and treated like a great Jewish sage. With his intellectual, intelligent face, he looked like one too, Edith adds. She is simply left standing outside. In the end, she finds a seat in the gallery at the very top, in the back row.*¹⁸

18. *Ibid.*, 313.

At the end of my remarks it should be important to shift the point of interest with the previous quote away from the opposing impressions of the contemporary witnesses about his (non-)toxic masculinity onto his religion, or to put it more accurately, onto his historical fate as a Jew in the early 20th century. Flusser's philosophical commitment to stay out of sociopolitical actionism and thus to purposefully "disengage"¹⁹ testifies not least to his fate as a bottomless displaced person and survivor of the Shoah. The great breach of civilization committed by Auschwitz thereby not only mocked the goals of Enlightenment humanism, but rather revealed the dialectic inherent in the instrumental reason of our Western society. For Flusser the end of history had thus been reached, but in contrast to other critical thinkers, he never gave up the gesture of man. For besides his admonitions, which always point to the inhuman potentials of our posthuman posthistory, Flusser always left room for utopian counter-designs to project us into the future after the telematic revolution. Posthumanism according to Flusser is thus not the overcoming of

19. Dirk-Michael Hennrich, "Existenzialismus," in *Flusseriana. An Intellectual Toolbox*, ed. Siegfried Zielinski, Peter Weibel and Daniel Irrgang (Minneapolis: Univocal Publishing, 2015): 177.

our human species *à la* Black Mirror, but rather our postmodern point of view allows us to outgrow ourselves and become truly human in the first place. Even if a model for this is still in the stars, Flusser encourages us to participate in its conception.

“Although we die alone, we survive together in the conversations of all those who are still alive.”

*From the Portuguese inscription on the gravestone in the New Jewish Cemetery in Prague, where Vilém and Edith are buried.*²⁰

20. Rainer Guldin, “Begegnungen mit Edith Flusser,” in *Flusser Studies* 18, (November 2014): 3, <https://www.flusserstudies.net/sites/www.flusserstudies.net/files/media/attachments/rainer-guldin-begengungenedith-flusser.pdf>

21. Vilém Flusser, *Vom Subjekt zum Projekt: Menschwerdung* (Frankfurt a.M.: Fischer Taschenbuch Verlag, 1998).

Similar to our project in Robion, the mood of the gesture of throwing stones does not really fit a birthday celebration as we had in mind. A devout laying down of my question, similar to what many of the Flusser School participants did of their own accord with their question stones, as is also the custom at Jewish graves, thus corresponds more to the situation of our gathering in Robion. To use the image from the beginning of the article again, it is necessary to neutralise the bitter aftertaste of Flusser’s poisonous theoretical blank space in forgetting the importance of feminism as a nuclear component in the project of “incarnation.”²¹ I think the image of the encroaching uncle hardly does him justice in this sense either. It is much more likely that he is the grandfather who has fallen out of time, but whom everyone still loves and with whom one likes to reminisce nostalgically about the past. However, one generously ignores the snotty remarks about current events. For back then, when he was still in the prime of his intellectual powers, no one knew as well as he did that nothing could be expected from applying outdated models and categories to the facts and problems of posthistory.

*So would Vilém have been afraid of being cancelled?
– No, certainly not.*

Would Vilém have been cancelled?

– Most certainly.

Would he care about it?

– No, definitely not. Me neither.²²

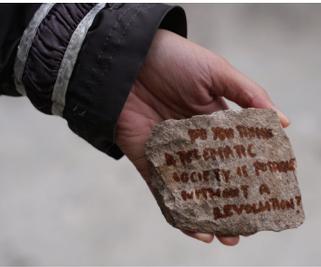
22. Imaginary self-talk
composed by the author.

Questions by participants

We asked three participants of our game to explain the motivations and ideas behind questions they threw. Very big thanks to them for their participation.

Steph Holl-Trieu

The question “Do you think a telematic society is possible without a revolution?” reflects on the fact that we already have multidirectional networks but capitalist structures of ownership and property curtail the potential of this technology in facilitating a society based on dialogue. It is not that we don’t have the means to program apparatuses instead of being programmed by them, they are just unevenly distributed. Ushering in a telematic society without a fundamental rupture in how our political economies are organised only reproduces inequality — upgrading it to a higher-tech version of itself.



Do you think a telematic society is possible without a revolution?

Marta Guerrini

Flusser’s writings reflect his wandering life: although the majority of his work was written in German and Portuguese, he also wrote in English and French, so I wonder what was the most predominant language of his thinking process?



In what language do you think?

Surely, as a philosopher concerned with language and communication, he always made very conscious choices about which language to choose to express a specific

thought - like when he wanted to stress the difference between “game” and “play” (a semantic difference that is not present in many other languages).

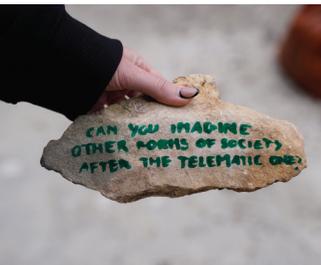
I wonder if his thoughts would already emerge in a specific language or if he would translate a thought in the language that he would deem most suitable for it. Also, as an expatriate who spent most of his life as a “foreigner”, I wonder if his sense of belonging maybe was somehow more rooted in feeling at home in different languages first and foremost or if he ever had one language that had more relevance to him than others.

Varvara Šatunova

Our society is a life form that is constantly evolving. If the conditions are met that will eventually form a true telematic society, what would that mean for us as humanity? Where could we go from there, and what forms could we, as humanity, take? With this question, I wanted to reflect on the speculative futures that lie ahead of us, while also using it as a reflective tool to assess our near future and what a telematic society might mean for us.

Epilogue: 231 - sector of the famous

While laying down the question stones in Robion and reflecting on the significance of the commemoration, the idea of visiting Oskar in his hometown of Prague took shape. This notion evolved further to include a visit to Flusser’s grave in the New Jewish Cemetery, which was another idea conceived during our time in Robion. However, it was to be quite a while before we were able



Can you imagine other forms of society after the telematic one?



to realise this idea, so that there was still enough time for me during another late summer vacation in Provence not only to understand why Flusser chose the southern French living environment of all places for his return to Europe, but also to take two memorial stones from the amphitheatre in Robion where the Flusser Summer School was held with me on my trip to Prague.

It was not until early fall, or Indian summer, that the two limestones were to make it to the gates of the cemetery accompanied by Oskar and me. Regrettably, however, we soon discovered that these gates were to remain closed to us on a Friday afternoon. After all, Shabbat is Shabbat. Despite our clear lack of cultural awareness, a friendly elderly lady helped us at least in locating Vilém Flusser's grave number once we provided her with the date of his passing.

A short time later, after the first snowfalls and sub-zero temperatures of early winter, we managed to get together again in Prague. This time, however, we were better equipped with covered heads and familiar with the culturally anchored opening hours of a Jewish cemetery. With the information about his grave site in a not-so-small cemetery in hand, we set off on our search, as the "be right back" sign of the guardian's office at the entrance to the cemetery prevented us from asking any more questions. The numbers' game began and we were able to prove how well our "numerical thinking,"²³ is not just fitting our being-in-the-digitality, formerly known by Flusser as the being-in-the-"point universe of computations,"²⁴ but also to this mathematical-logical treasure hunt. Unfortunately, the nice guardian's table from last time did not contain any row or column designations, so that we had to anticipate the free "combination game of possibilities"²⁵ through creative conclusions. Individual sections had an ordinal number,

23. Vilém Flusser, *Die Schrift: Hat Schreiben Zukunft?* (Frankfurt a.M.: Fischer Taschenbuch Verlag, 1992), 27.

24. Vilém Flusser, *Lob der Oberflächlichkeit. Für eine Phänomenologie der Medien*, (Bensheim/ Düsseldorf: Bollman Verlag, 1993), 11.

25. *Ibid.*, 45.

26. Guldin and Bernardo, *Vilem Flusser (1920-1991): Ein Leben in der Bodenlosigkeit*.

while the individual graves were numbered line by line. The first sections of the cemetery made sense to us, so we searched unsuccessfully through several sectors. From the descriptions in Vilém's biography by Rainer Guldin, it was still buzzing around in my head that the grave must be not far from Franz Kafka's and near a road.²⁶ After a while, we were disillusioned about ever finding the number 231, as the idiosyncratic arrangement of the numbers just wouldn't make sense to us, so we made our way back to the warden's office.

Slightly chilled, an elderly guard with a lovingly crocheted kippah opened the small shed at the entrance to the cemetery for us instead. The cosy warmth of the room hit us in the limbs, as did the smell of a probably kosher sausage that must have been warmed up here shortly before. After a brief Czech conversation between Oskar and the guard, which I didn't understand (Omlouvám se, Oskare!), the guard stoically typed with both index fingers on the computer keyboard in front of him. After a while, the printer sounded and, after taking out the printout, he explained to Oskar what was written on it. When we had left the room, we unfolded our treasure map, on which our destination was marked with a cross: "231. This is the place for famous people."

Determined to find it, we made our way to sector 231, passing Franz Kafka's grave on our way. Arriving at the sector of famous personalities, we found the sixth row and eighth column and then it was finally in front of us, the grave of Flusser and his wife. After a brief pause, we were pleased to see that we were not the first to leave a souvenir for the couple. In addition to chestnuts that had apparently only recently been placed on the grave, we also found a mini jack split adapter that must have been

Plánek ke hrobu

<https://db.matana.kehilaprag.cz/sites/default/includes/sector-plan.php>

Nový židovský hřbitov, Izraelská 1, Praha 3 - Žižkov

Sektor/Řada/Číslo

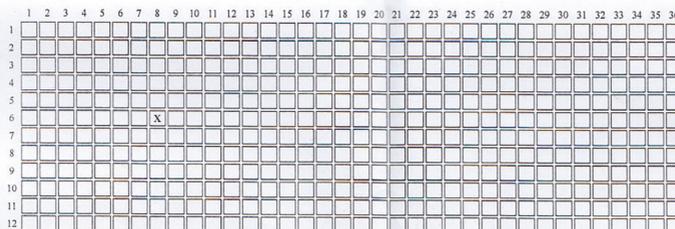
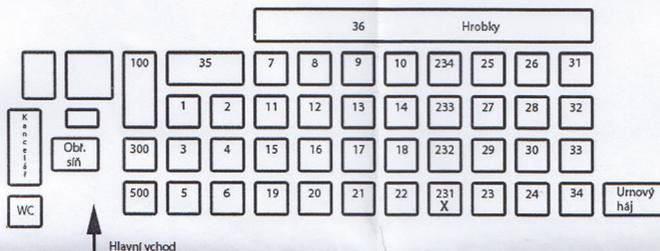
Umístění hrobu:

231-006-008

Obsazení hrobu

Jméno	Rok úmrtí
Vilem Flusser	1991
Edith Flusser	2014

Orientační plánek



* Poznámka: Řady se počítají od severu. Hrobové číslo (přesné umístění) od západu



lying there for some time and probably came from a still wired vision of the digital era.

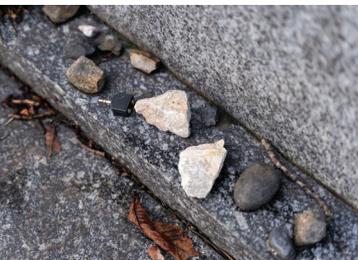
What music did the two of them listen to together on those balmy late summer days in Robion? Did music even play a role in their lives? At the very least, the auditive, if at all, played only a subordinate but significant role in his work.

After all, only through listening to music as an experience of the absolute, one is able to overcome the relativity of the subject-object dichotomy from which our material existence emerged. Over and above this impression of absoluteness merges into *mathesis universalis* as a pure relationship,²⁷ as well as insight into the fact that terms such as spirit, soul or intellect actually designate physical processes.²⁸ “Only when one traces music back to acoustics and the mind to nerves and muscles does one see the secret of pathos, the Orphic mystery, the Pythagorean “theorem”: the harmony according to which music and mathematics [...] lead to the wisdom of goodness and beauty [...].”²⁹ Embodied cognition through listening to the Pythagorean harmony of the spheres, so to speak. And so, in the end, the sound of the silence of the cemetery was combined with the spirit of the gesture of laying a stone in quiet remembrance of those who have passed away in the voiceless limestone in my hand, which then merged with the Czech soil as if of its own accord to become one with the ground again.

27. Vilém Flusser, *Gesten. Versuch einer Phänomenologie*, (Frankfurt a.M.: Fischer Taschenbuch Verlag, 1994), 158. Translated from German by the author.

28. *Ibid.*, 156.

29. *Ibid.*, 157-158.





In this way, your work and the memories of you continue to ensure that people engage in intersubjective exchange with each other and participate in the projection of possible futures. So thank you, Mr. Flusser, for bringing us both together here with your ideas, and thank you, Mrs. Flusser, for your careful translation and archival work that made his work accessible to us in the first place.

I am sorry, but with the laying down of this memorial stone, I not only want to bring the project of the paper for the Flusser Summer School to an end, but also symbolically close the book cover of your work, because it is time for me to move on now.

30. The author's thoughts while laying down the stone.

*In silent remembrance,
your Max Wileschek³⁰*



31. Translation of the Hebrew Tenach into German from 1929. Translated from German by the author: "Let the wise discern this, and the prudent recognize that."

*"Kdo jest moudrý, aby to pochopil, rozvážný, aby to poznal."
"Wer weise ist, unterscheide dies, gescheit, erkenne es."³¹
Hosea 14:10*

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An editable version of this publication
is available on the FlusserWiki.
To access, just scan the QR code above.

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