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Clearing the Mist

Digital Practices in Overcast Conditions

The research project *Clearing the Mist: Digital Practices in Overcast Conditions* brought together four researchers: designer and typographer Antoine Gelgon; graphic designer and developer Alexandre Leray; graphic designer and artist Romain Marula; and designer and developer Marianne Plano. They were all trained in and teach at Higher Schools of art, and they all share a vision of IT as a creative medium whose potential can be developed using free and open-source technologies.

While each of them is, or has been, a member of several different collectives or groups, for this project they joined together around a dual observation: the reoccurring pitfalls related to the transmission of their digital practices, as teachers and collaborators, as well as the limits of the free software paradigm in environment dominated by cloud computing. This system, which remotely localizes the functions and data of our devices, determines, shapes, and reduces what we are able to do, while intensifying our dependence on connectivity.

The group's proposed research methods involved establishing collective situations from which to imagine more ecologically, economically, and socially sustainable digital practices. *Imagining* means a process of reappropriation, involving both the sharing of analyses of the workings of Big Tech's hegemony and its detrimental effects (fully digital solutions replacing public services; the regulation of social life, etc.), group worksessions and experiments connected to representations of the digital (computing in cinema, the mapping of alternative practices, etc.), but also offering format able to revitalize imaginations regarding the uses of the digital (telling stories of user experiences, playing around with servers for whimsical reasons, etc.). To this end, the worksessions were organized around two themes, "Counter-Narratives" and "Technological Myths." The research group conducted interviews with all the people and groups invited to the worksessions. Finally, drawing on the preliminary workshops and a kind of elongating of the growing distance between tools and users—often associated with magic—an exhibition was presented at KBK Gallery.

The following interview was conducted in Brussels during the summer of 2023.

Art / Recherche (A/R)
Alexandre Leray (A.L.)
Romain Marula (R.M.)

(A/R) Wanting to extend your knowledge of the economic, political, and ethical issues surrounding digital ecosystems is as connected to wanting to enrich your practices (as developers, typographers, and designers) as it is with the way they are understood when you teach or collaborate on projects. Could you say more about this?

(A.L., R.M.) One of the starting points for the *Clearing the Mist* research project was the sense that teaching digital art in Higher Schools of art was becoming more and more difficult. Talking about our classes, we found a number of recurring issues. For example, it's now not unusual for our students to have no idea where their files are stored, only to find them backed up remotely, in the cloud. Researcher Dave Young identified this trend in 2015, connecting it to the shift to smartphone-based computing (apps + cloud): "It has become increasingly clear that the interface bias of the smart OS prioritises data-access and content-delivery, focusing on consumption rather than production."¹

We wondered how this shift in the way data is accessed and represented contributes to the opaqueness of digital operations and the standardization of use. We also wondered if this might be leading to a kind of disorientation (even distress) in the face of digital technology and a narrowing of imagination. We can see on the web how this standardization restricts originality and diversity in terms of browsers and interfaces. For example, from 2000 to 2006, MUDAM placed its website in the hands of artist Claude Closky, who transformed it into a completely unique object.² This would be almost impossible today, given that the focus of museum websites has shifted toward communication and instant access. The more standardized the web becomes the less likely users are to appreciate and accept innovative experiences. These norms become habits and contribute to the solidification of usage practices.

(A/R) The allure of the digital interfaces and tools that we use everyday rests, to a large extent, on the illusion of their neutrality and the myth of transparency. Was this one of the starting points for your thinking?

(A.L., R.M.) As artists and designers, we all believe that computer technology is more than a simple production tool. It is also a creative medium. This perspective probably come from our discovery of computing at a time when PCs were seen as accessible, adaptable,

and versatile machines, with the user at the center.

As Olia Lialina pointed out in 2012, however, a paradigm shift emerged in the 1990s, which took on its full form in the second half of the 2000s, in parallel to the emergence of cloud computing. It involved replacing the notion of the *user* with that of the *experience*. The central idea was that in their complexity, interfaces, with innumerable buttons and options, were hindering people reach their objective. As a result, it became imperative to make these interfaces, and the hardware and infrastructure supporting them, transparent, that is to say, invisible.

The notion of the user disappearing could be quite welcome, as it is an idea that fails to take into account the diversity of possible interactions with machines and the different roles that we can assume. However, Olia Lialina warns us against such invisibilization, because it is accompanied by a loss of freedom and the right to use—or misuse—our software as we choose.

The smartphone symbolizes this evolution perfectly: it is presented as an extremely personal device, despite incredibly limited interfaces, interactions, and functionality in terms of applications, and despite the fact that, generally, our data is not stored on the device but at a distance, in the cloud (without connectivity, the smartphone is really much less *smart*). These principles of interaction (app stores, input methods, etc.) now extend to all devices, transforming them into just terminals, gateways to the cloud rather than independent and versatile computers. As artist James Bridle has said: "For me, that division of personal computer is obviously and I think increasingly not true, because we all live inside this kind of shell of computation now. We know that these are mostly terminals to other connections, whoever owns them, whether we build these things outwards or not, whether we're talking to satellites or not. (...) The ENIAC has not contracted into these things; it has actually expanded out into a kind of vast shell around us."³

At a time when this is the dominant approach to computing, how can we continue teaching digital technology in Higher Schools of art in a way that encourages appropriation, diversion, and creativity. This is one of the questions we asked ourselves as a prelude to our research, when we realized how difficult it was to go beyond the simple notion of use with our students.

(A/R) Working with free and open-source software is a key element of your practice, for design and web development. These tools demand that people play an active role in choosing, using, and adapting them. Why is this an important prerequisite for your research?

(A.L., R.M.) Free software is more of a starting point than a prerequisite. The movement was born in the 1980s, in reaction to the increasing control of IT by private companies, which extended to the copyrighting of software. Free software has shrewdly used these same copyrights to facilitate the circulation of software. Communities have organized themselves to collectively build, critique, modify, and maintain not only software, but also the infrastructure that supports these practices. Free software invites us to take ownership of our tools and gives us the chance to influence the way in which they're produced.

Since the creation of free software, however, the situation has changed. Indeed, since the late 1990s, online services have replaced software sold on physical supports. This relieved customers of the responsibility of owning and maintaining their own infrastructure, leaving it—and the associated control of power—to the tech companies. This is cloud computing: a centralized model that concentrates a large number of computers and then resells the “computational” elements individually, like a “commodity.”

The business model of these companies now consists of establishing themselves as the dominant infrastructure in a sector (food delivery, for example), and continually gaining new markets, including in public (health, education, etc.) and private (romantic relationships, etc.) areas. Nearly everything we do with smartphones—online services (Zoom, Deezer, etc.), file storage (Dropbox, WeTransfer, etc.), logistics (DHL, Amazon, etc.)—is dependent on the cloud. Amazon's cloud infrastructure business is now its third-largest sector in terms of revenue. Apart from the fact that this model damages institutions and social relations, it requires ever more calculations, and exhausts our planet and its inhabitants.

The way free software has been conceptualized, essentially around technical aspects, with a binary (free/not free) and universalist approach, doesn't permit it to be a viable alternative to the cloud. For example, free software doesn't address the extractivist aspect of technology and cloud computing's infrastructure is predominantly based on software and processes derived from freeware. One of the goals of our project was to go beyond these shortcomings of free software and collectively imagine other digital practices that could be more inclusive and less extractivist.

(A/R) Your research brought together people from art, design, philosophy, economics, and activism. To do this, you established worksessions. Can you tell us how these collaborative sessions were set up?

(A.L., R.M.) We quickly realized that there were many people who had been working for a long time and at advanced levels on the issues raised by the transition to cloud computing. So we refocused our research around visual metaphors, including interfaces, interactions, and iconography. Our premise was that these metaphors weren't just figures of speech, but that they conditioned our perception of the world and, in turn, how we act. This domain of the image and the imaginary seemed less explored and more in tune with our practices as designers and artists.

To us, notions of collectivity and solidarity seemed fundamental: the cloud's infrastructure conditions how our lives are organized in society, and so to oppose it we need collective propositions. We settle on a format comprising two intensive sessions of four days each, with some thirty participants all together, from Belgium, France, Netherlands, and Austria. Each session included two workshops led by guest speakers, plus seven or eight presentations given by the participants, most of whom we'd personally invited.

Our idea was to create “collaborative situations” for thinking and creating together, inspired by the workshop form developed by the Association for Art, Media and Technology, Constant vzw, in Brussels, which it calls “critical making.” The idea is to begin with practice, and from there produce a reflexive discourse. In this central phase of our project, our role was first that of facilitator, then during the worksessions, we were creators as a collective.

(A/R) The worksessions were themed: could you tell us more about how you programmed each one?

(A.L., R.M.) We defined two main themes: “counter-narratives” and “technological myths.” These were chosen because of the links we could establish between our concerns and those of the participants, especially those running the workshops. Some of the people we invited were already working directly on cloud-related issues. For others, we identified areas in their work and we invited them, outlining our interest in their contribution in relation to the themes we'd identified.

The first worksession, titled *Counter-Narratives*, was a conversation about alternative models and approaches to the current digital environment. The goal was to go beyond the question's purely technical dimension and adopt a *pluriversal* approach, integrating notions such as the collective, inclusiveness, and diversity of practices, in contrast to the current universalist and hegemonic model. We covered themes as varied as the financialization of infrastructure by tech giants (Seda Gürses), digital siting (Thomas Thibault), and the birth of the cloud computing *metaphor* (Sofia Boschat-Thorez), to mention just a few.

At the workshop *From Appropriate Technology to Permacomputing*, led by artist and researcher Marloes de Valk, we mapped a range of historical and contemporary computing practices along with alternative movements to highlight their divergences and convergences. Then we extracted a collection of practices and considerations to create an “executable glossary” in which each entry describes a term and includes the steps involved for its implementation, making it a tool for communities.

With the help of the collective TITIPI, among whose aims is “to generate currently inexistent vocabularies, imaginaries, and methodologies,” we began by sharing stories about uncomfortable situations with digital technology. Then we created a series of technological fables, written collectively and performed or read aloud, the goal of which was to transform the solitary into the united.

During the second worksession, titled *Technological Myths*, we looked at the fantasies and contradictions that pervade our relationship with technology. Here—and by no means exhaustively—we tackled themes including the representation of computing in cinema (Lionel Maes), cultural bias in machine learning (Nicolas Malevé), and the West's fetishization of automation (Tyler Reigeluth).

Artist Dasha Ilina led a workshop titled *Be? Here? Now?*, in which we discussed our paradoxical relationship with platforms, mixing individualism and isolation with a desire for spirituality and communion, to then create a series of parodic promotional objects (videos, flyers, etc.) inspired, for example, by the success of online yoga classes.

We extended these themes in the workshop run by Élie Bollard, an artist exploring our relationship with technological objects, creating poetic sculptures from discarded objects. As a group, we tinkered with small computer servers, the functioning of which required wacky or provocative actions, speculating on cloud computing's possible futures. For example, a “new age” server, hidden in a plant, required continual singing and rocking to keep it running.

(A/R) As you might expect (hope even) some of the meetings, presentations, and joint working sessions shifted your perspective on web technologies and practices: on data capitalism, and on certain ecological issues especially. Could you share a few examples?

(A.L., R.M.) There are a lot of examples, but more than any individual contribution, it was without doubt the cross-pollination that was the most rewarding. Looking back, it's interesting to see how our discussions evolved and influenced the workshop projects.

While critics of Big Tech mostly focus on the economics of data and algorithms, Seda Gürses showed that cloud revenue is primarily derived from the control of infrastructures that require increasing amounts of computing to assure their economic growth. This presentation resonated forcefully with the interventions

of Marloes de Valk, Thomas Thibault, and even Davide Bevilacqua, all of whom are interested in technology's environmental consequences. They noted a rebound phenomenon, where each optimization is accompanied by increased consumption. It is clear that tech players are only interested in optimizing infrastructure when they benefit economically. For example, Marloes de Valk cited the case of new, publicly financed wind farms in the Netherlands, which power new data centers rather than replacing fossil fuels in the energy mix. Understanding this growth model is important because it helps us defend a "hand-crafted," self-managed hosting project like that led by Davide Bevilacqua,⁴ even though it operates with less optimized machines.

Another illuminating aspect of these meetings is the necessity to rethink the socialization of technological issues by linking them to ecological, economic, and social concerns. At a time when engineers are experiencing popularization as a result of machines' increasing complexity and their nondeterministic operation, Tyler Reigeluth reaffirms the importance of developing a technological culture, as described by philosopher Gilbert Simondon. Quite distinct from purely individual know-how, this technological culture can be embodied through a concrete, sensory, and situated experience of technological objects. Tyler Reigeluth gives the example of a lawnmower: thanks to its vibrations, you can know something of how it works without being a mechanic.⁵ This technical culture is in contrast to our culture of innovation, in which "inventions just seem to come out of nowhere; they have no continuity in history and so they also have no value because they're disposable."⁶ It's not a matter of cultivating a fetish for nostalgia or the technical object, but rather giving ourselves the means to reappropriate the multitude of tools and practices to build other, more appealing futures. To achieve this, though, we need to imagine institutions capable of supporting this initiative, in the way TITIPI has, with its writing of technological fables, enabling us to envisage forms of sharing around the digital with people whose interest are, a seemingly distant from these issues.

(A/R) Most of you teach in Higher Schools of art. From your point of view as lecturers, is there a specific issue around emancipation that is behind this drive to nurture such knowledge?

(A.L., R.M.) Emancipation's challenges vary. First, and above all, art schools, as places of creation, must make it possible to critique and bypass industry standards in order to formulate their own artistic approaches. There are many educational avenues that exist or that are yet to be invented, such as exploring a variety of software and approaches, working with old hardware (often easier to "hack"), or chosen according to ecological and ethical considerations discussed with the students.

Schools also play an essential role in forming students' critical thinking skills,

including in connection to technology. However, there are major inequalities, not just in the subjects taught, but in every aspect of daily life (interactions with the administration, online tax filing, etc.). These inequalities are exacerbated, as we see it, by the multiplication and complexification of procedures (through the proliferation of digital kiosks), which are consequences of the cloud computing model's widespread deployment.

It's not just students who are affected by these problems; they also affect administrative and teaching staff. We often underestimate digital learning needs, assuming that inequalities are predominantly material. While you wouldn't imagine allowing a student to use a film photo lab without training, mastering digital tools, such as Google Drive, is often taken for granted.

Without a doubt, a first step to address these problems would be for Higher schools of art to make their technological choices (software, hardware, infrastructure, maintenance, and so on, from the classroom to the administration) consistent with their pedagogical objectives, and to discuss them collegially, not separating technical questions from policy issues. We still need to invent spaces for this, but we believe that it is a project that offers opportunity for thought.

(A/R) You've taken advantage of the fact that certain users of digital tools consider their operation to be akin to "magical thinking," extending your research into speculative installations that can activate alternative imaginaries. Can you tell us more about this aspect of your research and the exhibition you organized?

(A.L., R.M.) Magic affects all of us, to varying degrees: whether it's the animism that we manifest when we attribute intentions to our buggy computer or when we allow ourselves to be seduced by techno-solutionism. Technology is always magical, particularly when we don't understand it. The idea of getting rid of it is thus illusory, especially since the scale and complexity of technical systems have long exceeded our individual capacities. That said, in the worksessions, we attempted to identify and address some of the detrimental beliefs associated with cloud computing. The goal wasn't to stand at the pinnacle and unmask unfounded beliefs, but rather to understand the consequences resulting from some of these beliefs.

As Tyler Reigeluth emphasizes, our Western culture has a particular relationship with technology, one that has led us to believe "that machines can, should and will replace human labor for reasons of efficiency." Cloud computing is a part of this logic, taking it one step further by presenting itself as elusive, weightless, and without friction. Stéphane

Degoutin talks about the "cloud-society" being "our way of life altered by permanent connection. Products, services, information, human relationships ... fall 'magically' out of the cloud, as if they were not material (which obviously, they are). Most of all, it affects our relation to the outside world: it's now just a vast externalized stock that potentially contains 'everything,' but whose... machinery is totally invisible."⁷

We tried taking advantage of this anthropological fact, technology's magical dimension, to turn it into a "propositional force" for the closing of the exhibition at KBK Gallery in March 2023. In addition to presenting interviews with the seven collectives and individuals who made presentations during our meetings,⁸ the exhibition was built around the productions created during the four workshops, reworked for the occasion.

For the *Infrables* workshop, for example, we produced a series of posters featuring excerpts from fables that we considered most likely to spur the imagination. Covering an entire wall, these posters presented a panorama of imaginaries at work in the cloud, as well as suggestions for ideas on how to escape them. Complementing the installation were by performances by Stevie Ango and Clyde Lepage, who dramatized certain of these fables.

The cards produced during Marloes de Valks's workshop were used to edit the *Oracle Tangible Cloud*. This tarot deck deliberately uses divination to challenge the tech industry's narrative of progress and innovation, creating a space for reflection on present and possible futures.

Also featured in the exhibition were parody videos produced during Dasha Ilina's workshop, *Be? Here? Now?* These included a video featuring an online discussion group about artificial intelligences, personifying AIs as automatic translators and image generators sharing their problems as if they are in an Alcoholics Anonymous meeting. The video illustrates how we anthropomorphize AI, including the questions we ask about their potential, their benevolence, or their danger, and ultimately, our deep desire to see technology as our docile servant while fearing that it will replace us.

Finally, we showed electronic server installations created during the workshop led by Élie Bollard, which played on techno-solutionist beliefs to better critique this idea. For example, a light triggered one of these works to self-destruct a server hosted by OVH in Strasbourg, symbolizing the cloud's death. These electronic installations were displayed in a rudimentary way, glued directly to the wall, with their cables visible, in contrast to the technological black boxes that surround us. A diagram by Camille Chautru accompanied each installation, describing how it worked and firing imaginaries with a staging that reinforced its absurd and ironic dimension.

1. Dave Young, "Know Your Filesystem (and how it affects you)," *Furtherfield*, October 20, 2015: <https://www.furtherfield.org/know-your-filesystem-and-how-it-affects-you/>.
2. See <https://www.closky.info/?p=1628>.
3. Considered the world's first programmable computer, the ENIAC was introduced in 1946. See James Bridle, "A New Dark Age: Turbulence, Big Data, AI, Fake News, and Peak Knowledge," *Chaos Computer Congress*, Hamburg, 57 min., December 29, 2016: https://media.ccc.de/v/33c3-8163-a_new_dark_age#t=12.
4. (servus.at).
5. Tyler Reigeluth, "The magical relationship to AI, or how to live with technical alienation," *Tangible Cloud Archives*: https://archives.tangible-cloud.be/files/interviews/11_Reigeluth.pdf, 2023.
6. *Ibid.*
7. Stéphane Degoutin discussing the title of his 2019 thesis. *Tangible Cloud* spoke to Stéphane Degoutin and Gwenola Wagon in December 2022: "Atlas of the Cloud": https://docs.tangible-cloud.be/publications-pdf/08_degoutin.pdf.
8. *Tangible Cloud Archives*: <https://archives.tangible-cloud.be/>.

CAPTIONS

- fig. 01 *The Real Truth About Data-center* by Celso and Antoine Gelgon at the workshop *Be? Here? Now?*. View of exhibition. KBK Gallery, Brussels, March 2023. Photo credit: Dasha Ilina.
- fig. 02 *E-life*, contribution (performance) to the *Infrables* workshop, *Counter-Narratives* session, May 2022. Photo credit: Simon Browne.
- fig. 03 Preparing Stevie Ango and Clyde Lepage's performance, based on the contributions to the *Infrables* workshop, at the project's final exhibition opening. KBK Gallery, Brussels, March 2023. Photo credit: Mathieu Lecouturier.
- fig. 04 Introducing the *Tangible Cloud Oracle* at the project's final exhibition opening. KBK Gallery, Brussels, March 2023. Photo credit: Dasha Ilina.
- fig. 05-10 Posters based on the contributions to the *Infrables* workshop, at the project's final exhibition opening. KBK Gallery, Brussels, March 2023.
- fig. 11 Group exercise to map practices linked to reducing the environmental impact of network infrastructure. View of the *From Appropriate Technology to Permacomputing: An Executable Glossary of Counter narratives and Practices* workshop lead by Marloes

- de Valk, *Counter-Narratives* session, May 2022. Photo credit: Alexandre Leray/ *Tangible Cloud*.
- fig. 12 Making the video *The Real Truth About Data-center* by Celso and Antoine Gelgon at the *Be? Here? Now?* workshop lead by Dasha Ilina, *Technological Myths* session, June 2022. Photo credit: Alexandre Leray/ *Tangible Cloud*.
- fig. 13-14 Drawings, Camille Chautru, 2023.
- fig. 15 *Light*, a contribution at *Nuage Sensible* workshop, June 2022. View of exhibition. KBK Gallery, Brussels, March 2023. Photo credit: Mathieu Lecouturier.
- fig. 16 *Cool*, a contribution at *Nuage Sensible* workshop, June 2022. View of exhibition. KBK Gallery, Brussels, March 2023. Photo credit: Mathieu Lecouturier.