digital icons
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The Art of Guarding the Russian Cloud: Infrastructural Labour in a Yandex Data Centre in Finland

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Abstract: This visual essay discusses digital labour in a Yandex data centre located in Finland. Drawing on a combination of visual ethnography, elicitation interviews and participant observation that took place in Yandex' only data centre located outside Russia between 2018 and 2019, I show how the labour of maintaining a crucial part of Russian internet consumption and data practices is contingent on the creative work of everyday inhabiting and humanising the industrial space of the data centre. With feminist art critique Lucy Lippard's (1974/2010), and anthropologist Mary Douglas's (1991) ideas of home, I suggest how work in the data centre rests upon mobilising traditionally feminine domestic crafts and hobby art work such as gardening, cooking, and waste reuse as mode of critique and ultimately, a transformational rehabilitation of a space designed to cater for the machines rather than for the people who care for machines.

Keywords: data centre labour, Yandex, platform labour, digital labour, craft, data infrastructure, Finland data centre

The industrial zone of Kapuli appeared in 2014 on the outskirts of Mäntsälä, a town of 20 000 inhabitants in Finland located not far away from the capital of Helsinki. Soon after, the available plots of land were occupied by diverse manufacturing and processing industries. Among them, in the newly-built industrial landscape, a data centre owned by Yandex, the Russian largest online platform for search, email, geolocation and transportation services was erected, too. Outcompeting Google's platform services in the Russian speaking part of the world, Yandex' data centre in Mäntsälä is today probably the only Russian corporate data centre located outside of the country. The facility has also for some time been considered to be the second largest in Finland, only preceded by Google's hyper-sized data cen-

tre located some two-hundred kilometres away, in the Finnish port and military harbour of Hamina.

Like the data centres of infamous big tech corporations such as Google, Amazon, Facebook, Apple and Microsoft, the Yandex data centre in Mäntsälä belongs to what Mayer (2019) calls 'a genre of container technologies which, along with the storage unit and the shopping bag, are forgotten in a world in which technologies are supposed to actively transform it'. Data centres are processing communication infrastructures which aggregate large volumes of computation power through which they remediate internet traffic and media, and convert it into a quantified, abstracted data needed for the accumulation of capital under 'surveillance capitalism' (Zuboff 2015). Strategic corporate visual communication has shaped a popular understanding of these infrastructures in terms of automated, depopulated, non-human spaces that are full of servers—white spaces representing 'a mechanized world of techno-wilderness' (Taylor 2019). Scholarly criticism, including mine, has condemned such industrial representations as performative, as they divert attention away from deeply problematic issues, such as the environmental impact, temporality and reconfigurations of media power that take place through data centres (Hogan 2018; Holt and Vonderau 2015; Rossiter 2017; Velkova 2019). Despite such criticism, most scholars have tended to accept the corporate discourse that defines data centres as purely technological spaces, abundant in servers (Hogan and Vonderau, 2019).

With this photo-essay, I complicate and offer an alternative understanding of data centres by arguing with Mayer (2019), and Taylor (2019) that we must understand them not only as *data spaces*, but also as *workplaces*, asking questions about the nature and experiences of the infrastructural labour in them. Taking the Yandex data centre in Mäntsälä as an empirical object, in this visual essay I illuminate the experiences of work of those whom Susan Leigh Star (1999) calls the 'non-people', people such as security guards and janitors who maintain the proper functioning of information infrastructures. Their work, Star argues, often tucks under the 'boring sameness' that permeates the form of infrastructures — pipes, software, cables, and likewise networked servers. Yet, without them such infrastructure and the new modes of capital accumulation that it supports would not be possible at all.

Seventeen people work in the Yandex data centre in Mäntsälä. Ten of them bear the official title of 'data centre operator', meaning that they are 'shift guys', workers whose job during 12-hour long shifts is to read measures and preemptively oversee the proper functioning of technological and electrical equipment on site. The remaining seven people have administrative positions. The security on site is outsourced to the Finnish company Avarn, which also takes care of other data centres in Finland, such as Google's in Hamina. One guard is on security shift duty at all times, alternating the 12-hour long shifts with a few more colleagues. Their superior is present during daytime hours, designing and overseeing the general security of the site. All of those who work in the Yandex data centre in Mäntsälä are Finns, most of them locals who live close by the facility. The Data Centre operators are young men, and many of them used to work in one of the nearby forklift, chair or can factories in the city, but moved to work in the data centre in search for better work. A distinguishing feature of their new experience in the data centre is working with a significantly fewer number of people as compared to the previous factories, but many of them told me that they did not mind it, even though it was not infrequent for them to meet just one person during a 12-hour shift. On

weekends especially, there are only three people on the site at all times. The low number of humans in the data centre has caused problems with the potable water infrastructure in the building, which releases copper due to the too little use and water circulation. For this reason, quite uniquely for a Nordic country, the employees in the data centre need to use water from plastic bottles.

While the shift workers do not mind the depopulated site of their work, security guards are anxious about it. In this visual essay I focus primarily on the security guards' experiences of work and their strategies to cope with the emptiness in the data centre as a way to illuminate ongoing processes of rehabilitation and care for a not-for-humans space which the data centre represents.

Image 1. The Yandex data centre in Mäntsälä, Finland. Contrary to how the data centre industry and the broader public see such a facility, namely, servers and data, for some of the security guards working on site, the facility is defined by 'stones, stones, stones', and emptiness. As one of them put it, 'Very little happens here. There is nothing. I kind of feel that I am guarding an empty space'.

Source: Julia Velkova.

In order to discuss the Yandex data centre as a workplace, I draw on a combination of photo material, interviews, participant observation and contextual information which I gathered during 2018–2019 within a larger project on the cultural production of the processing infrastructures of 'big' data, wherein human labour is a crucial but often unacknowledged part. In 2018, I made two visits to the Yandex data centre in Mäntsälä during which I partially documented some of the spaces there, and conducted interviews with the site manager as well as

with some of the employees. In connection to these visits, one of the employees shared with me a collection of more than 350 photos that depicted everyday situations in the data centre from the perspective of some of the security guards. These photos have been taken outside of the context of this research and were shared and contextualised with me during a session that resembled a form of 'photo-elicitation' (Rose 2016), during which we discussed the context and experiences that these photos document. I was granted permission to use the photos upon obtaining consent from the data centre site manager and the head of security prior to publication in order to ensure their ethical use.

I use parts of this visual material produced by the data centre employees alongside photos which I took myself during my visits of the Yandex data centre in a way which invites us to see the data centre not as a site that is part of the infrastructural expansion of data computation and processing practices, but as a site of human care and *rehabilitation* of a dehumanized data space produced by ideas about digital automation. Such rehabilitation, I suggest, takes place largely based on employing feminine domestic crafts and hobby art projects that recode and repurpose the excessive space of the data centre. Using snippets of text, images and mini-themes, this essay is a multimodal bricolage that disrupts both common representations of data centres that portray them as data-places, and conventional narratives used to describe such media infrastructures.

1. Data centre gardening

Gardening in the Yandex data centre in Mäntsälä is a pass time for Taija, the only woman working as a security guard on site. The data centre offers good conditions for growing plants, as the administrative building features a lot of glass windows. Tomatoes, strawberries and pumpkins enjoy the light and provide a pleasant pass-time and aesthetic pleasure for some of the employees.

Image 2. Data centre gardening.

Source: An employee at the Yandex data centre in Mäntsälä.

In 1974, feminist art critic Lucy Lippard (1974/2010) argued for the need to take feminine domestic crafts as a way to understand the extent of gender and class prejudice that existed in relation to art, tapping also in an old and gendered distinction of status between arts and crafts. She conceptualized women's amateur hobby projects such as crocheting, embroidery, patching clothes or weaving in the home as an important art of making that rests on the feminine labour of what she termed transformational rehabilitation, or the inventive emotional and practical mending of objects through which the public dignity of the home is maintained. In the Yandex data centre, traditionally feminine domestic work such as planting, cooking, craftily reusing waste and decorating rehabilitate the desolated, machinic and automatised spaces of the data centre as a site of aesthetic pleasure for the few women and generally, the rest of the workers there.

2. 'The barrack time'

In 2014, while the Yandex data centre was being built, its employees were recruited and given a small barrack on site as an office. The period, remembered by the employees as the 'barrack time', has also been defined by an experience of emptiness, being very remote from any experiences of digital consumption: 'There was no building, nothing. Only poles, and frames. We didn't know half a year what it would be like. I thought that I could not work here because there was no IT here—there was no building! We lived in barracks for a year', remembers an IT maintenance employee. The labour of guarding and repairing the data centre was equated during this time to that of the temporary construction workers who built the site.

Image 3. Yandex Data Centre Under Construction, 2014

Source: Google, Maxar Technologies.

3. The data centre as a home

Yet, once the building was in place, it created the experience of 'another home'. For security guards, and other shift workers, the data centre feels like home, because of the long time they spend on site during their 12-hour long night shifts. These shifts awaken their creative restlessness. Some take free university courses online at night and enhance their technical literacy. Others opt out for more creative projects which provide distraction from looking at the screen and counting the rabbits which have incidentally penetrated the territory of the data centre at night.

Image 4. Rabbits visiting the Yandex data centre during a night shift.

Source: An employee at the Yandex data centre in Mäntsälä.

Anthropologist Mary Douglas (1991) defines the home as a space which is performed through the ideas that the people inside of it have about their lives in time and space. For one of the security guards, a home has animals and plants. The tomato plant in the photo below has been retrieved by one of them from the rocky surroundings of the main data centre building during one of the night shifts. Found growing there, it journeyed to an empty floor in the main administrative building where the few women working on site cared for it and later replanted it outdoors.

Image 5. Tomato plant in the Yandex Data Centre.

Source: An employee at the Yandex data centre in Mäntsälä.

Similarly, two plushy lamas brought by security guards welcome visitors of the Yandex data centre at the main gateway. Besides embodying the idea of a home, they are also a satirical commentary on the part of the employees about the empty, vast, rocky landscape of the data centre which they jokingly refer to as resembling a desert, or the natural habitat of lamas, gesturing to the gravel-covered areas on the site of the data centre and performing a symbolic politics of reintroducing nature in it.

Image 6. Lamas at the Yandex main gateway.

Source: Julia Velkova.

4. The aquarium

A home begins when it is brought under control, suggests Douglas (1991). In the Yandex data centre, creative restlessness intersects with ideas of control, and the roles of the security guards as the guardians of the data centre. The data centre, as the 'home' of data needs to be patrolled and securitised. Security guards and security booths are positioned strategically on site. Yet, the guards also take control over the observational infrastructure from where they are supposed to work. 'The security guard [booth] looks like an aquarium. [The guards] are the fishes inside', explained to me the site manager. Playing on this cue, the security guards took inspiration from an off-work hours leisure trip to a major aquarium site in the surroundings of Helsinki and redesigned one of inner-located security booths into an aquarium. No longer empty technology of observation that enables a panoptic gaze, the guards reinserted pseudo-life in it by putting fishes hanging from the ceiling: a dolphin, an octopus, and a 'No touching' sign. 'These fish don't like to be touched. Fish can bite', they admitted. In this form of spatial recoding, the security booth is redefined from a form of excess that the data industry has produced—an empty, useless space without function and in need of repurposing and aesthetication—into an art project which is exhibited to the employees and occasional

visitors of the data centre. The strategic location of the security booth at the entrance of the administrative building on site makes it impossible to pass by, and therefore not look at.

Image 7. A security booth that doubles as an aquarium.

Source: Julia Velkova.

5. Aesthetics of data centre waste

Another instance of similarly artful recoding that takes place around technologies of control is symbolised by a graffiti-painted trash bin. The bin is among the first sites that meet visitors at the main gateway of the Yandex data centre. Like the aquarium-like security booth, the leopard-like patterns of the trash bin make its presence abrupt and surprising. Made by one of the security guards at night, the explosion of colours and its appearance at a rather unexpected location insists on taking into consideration the presence and creativity of the 'non-people' working on site, and the power of the guards to control the presence of people on site, but also to establish control over the aesthetics of the largely unaestheticised site. It invites to focus on the meaning-making practices and creative energy of the employees not less than on the data being processed and stored behind the security fence.

Image 8. A graffiti-painted trash can welcomes visitors at the main gateway.

Source: An employee at the Yandex data centre in Mäntsälä.

6. Latent space

The Yandex data centre is often considered in public communication as the second largest in Finland after the one by Google in the port of Hamina. Such comparisons obscure the fact that despite its size, some of its spaces are still empty.

Image 9. One of the four empty floors in the main administrative building of the Yandex data centre.

Source: Julia Velkova.

The main administrative building was designed to host 300 employees, but to date it has only 17 people working, most of them in shifts. At the time of writing, the construction of a second building for servers was launched, yet two more still remain to be built. Ideas about excess of data that needs to be processes by data centres produces an excess of space, which remains latent, dormant, anticipating to be valorised or entirely discarded in a near future. In the meantime, this latent space becomes a stage for creative making by the employees of the data centre. For a short time, the second floor became the stage for building what the employees imagined to be a Moomin castle, gesturing to a popular Finnish cartoon.

Image 10. A ‘Moomin house’ made of trash in an empty space of the Yandex data centre.

Source: An employee at the Yandex data centre in Mäntsälä.

The Moomin house, a construction inspired by a popular Finnish cartoon with the same name, was made by the employees using the pink foam protection that enveloped the Chinese-manufactured but designed by Yandex servers which were placed in the data centre. In the original Finnish cartoon, the Moomin house is hand-made and durable, it withstands storms and earthquakes and has room for all the family and friends of the main characters. The pink Moomin house that decorated one of the empty floors of the Yandex data centre represented wittingly or unwittingly a playful recoding of the custom-built, heavily securitised, meant to withstand power outages and catastrophes data centre. It was also a subtle criticism by the workers through which they made apparent the emptiness of the excessive data centre space, and made it into an arena of playful work that rehabilitated the space and waste at the same time. Such rehabilitation is needed, because the whole site is designed to care for the comfort of machines, but not the people in it.

7. The non-built restaurant

For instance, the Yandex data centre employs cutting-edge technologies that entwine nature with data processing. The building is designed as an airplane wing so as to capture the wind flows and circulate them through the server rooms in order to cool down the computing machines. The heat produced by the machines is captured in turn and rerouted further into apartments of the citizens living in Mäntsälä. In the backdrop of such technological developments that make the argument of a ‘natural’ entanglement between the elements and data, the human needs of the ‘non-people’ who care for this synergy are left out. The restaurant that was supposed to be built on site to cater for the food and energy that humans need is now merely

a storage space: 'We have our own restaurant but it has never been built. We are just twenty people. Nobody would run a restaurant for so few people. And we could not rent it out because our work is so protected—you need to pass by the security every time, and so on', one of the employees explained to me.

Image 11. The data centre restaurant doubles as a storage room.

Source: Julia Velkova.

8. Slow cooking

The lack of food facilities and the remote location of the data centre rule out the possibilities to get freshly-cooked food during both shifts and night work. Eating on site demands careful planning, and propels the inventiveness and subversive resistance among the employees. Unexpectedly, the security booth at the main gateway doubles as a kitchen where security guards engage in slow cooking during day and night shifts. Pulled pork, pea soup, meat stew, chicken soup, porridge are among the favorites to prepare: 'Every morning I boil porridge, because the boys want it. And it's nice. I put strawberry sauce. They eat. Because we want everybody to like being there', one of them explains.

Image 12. A stew prepared by one of the security guards using a temporary kitchen placed at the security booth at the main gate.

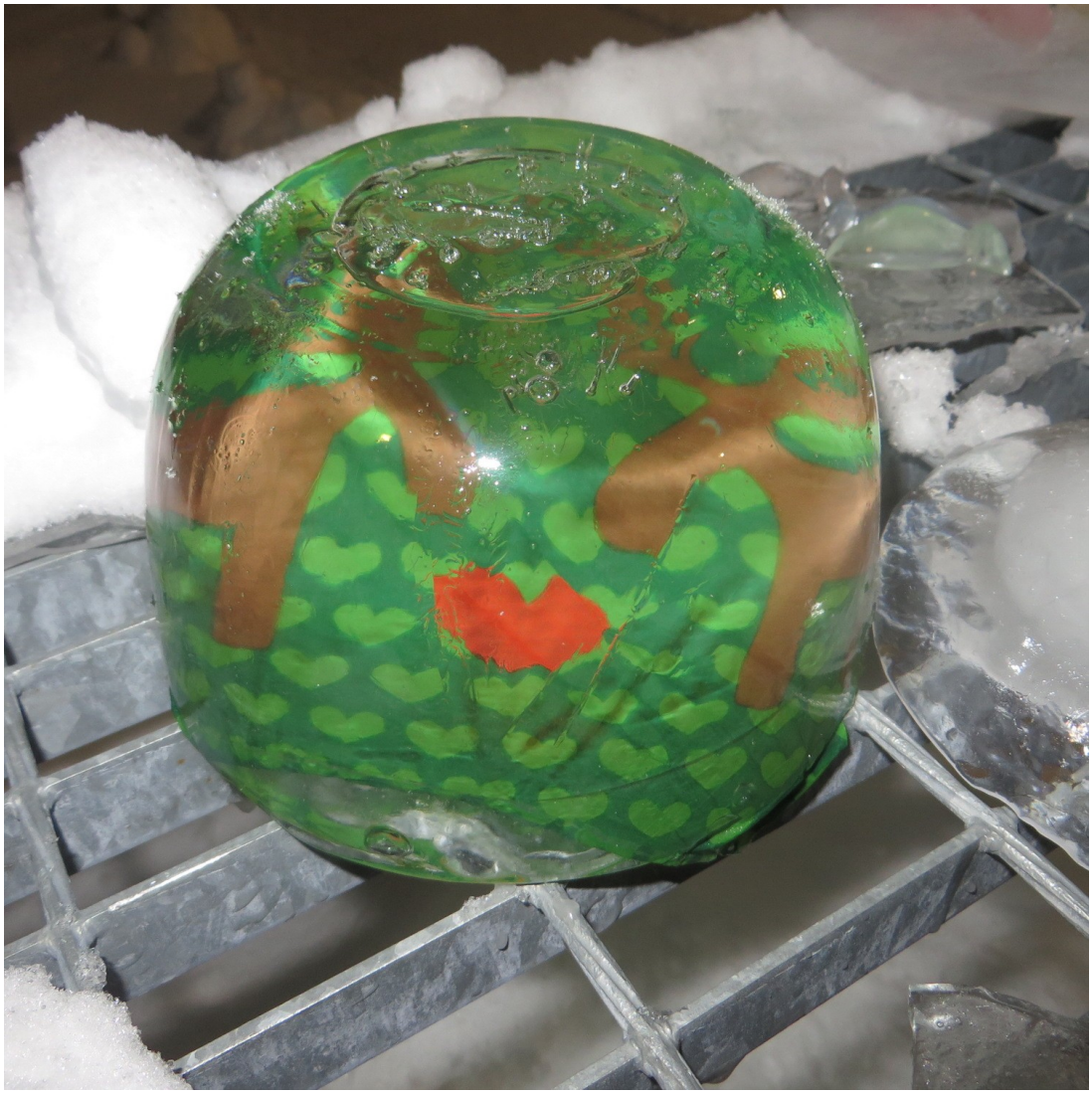
Source: An employee at the Yandex data centre in Mäntsälä.

9. Ice beauty

The aesthetics of the data centre is not an object of concern for its corporate owners. During some of her winter night shifts, Taija, a security guard, aestheticizes the empty, stony landscape around her by making ice cakes. She uses paper and symbols which signify the Finnish location and the Russian corporate identity of the data centre, such as the moose. She places them in bowls, fills them with water and leaves them to freeze during her shift. These ice sculptures adorn and add an aesthetic beauty to the grey, faceless space of the data centre.

More importantly, they act as a reminder that even if data centres represent and enable a shift towards a new degree of automation of labour, the labour within them articulates the persistence of craftwork, irregularity and tacit knowledge that co-exist alongside the mundane labour of securitizing the data centre. As Glen Adamson suggests, seemingly paradoxical renditions of the relation between industrial, modern labour and craftwork are 'not…a paradox, or an anachronism, or a set of symptoms, but as a means of articulation. It is not a way of thinking outside of modernity, but a modern way of thinking otherwise' (2010: 5).

Image 13. An ice cake.



Source: An employee at the Yandex data centre in Mäntsälä.

Concluding remarks

The incidental hobby art and objects of spontaneous craftwork made by the employees in this photo essay surprise and at the same time blend naturally into the barren datascape created by Yandex in its Finnish-located data centre, all the way from the gateway, through the asphalt and rocky area that surrounds the buildings of the data centre, and deep into its internal 'white' spaces. As much as having an aesthetic function, these objects and artistic hobby projects perform a form of criticism towards the neglect of human labour and their working condition, both by the industry that establishes these communication infrastructures, and by the broader public whose everyday digital lives are enabled by the forgotten infrastructural labour behind the glamorous scenes of the blinking servers and visions of endless data to be captured and mined. The labour of maintaining a crucial part of Russian internet consump-

tion is, as this photo essay shows, contingent on the creative labour of everyday inhabiting and humanising infrastructural, industrial spaces which prioritise the comfort of machines rather than that of people. Illuminating and discussing these efforts is a crucial step on the broader path of locating the social and the role that humans play in the material, automated spaces created by and supporting digitalisation; and intervening in corporate discourse and practice that has displaced humans in favour of a celebration of servers and the machinic spaces they inhabit. As the labour of humanising and aestheticising theYandex data centre suggests, the human-free spaces of digitalisation are still a fantasy, and scholarly work should critically engage with these fantasies, instead of bending to and reproducing corporate discourse.

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