

HCI Design Thinking and Digital Innovation

#### **Group A/1 – GetOFFice: An Anti-Work Project**

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"Ne travaillez jamais" - Guy Debord, 1963

# **EXECUTIVE SUMMARY**

It's no secret that the nature of work is shifting. Some argue that the COVID-19 pandemic has been the main cause of contemporary work changes – but with automation, globalization, and a trend in accelerationism, perhaps this was the direction we were heading in all along. According to the European Union Eurofound 2021 Survey on Labour Conditions, the new work environment is one at home; more people are starting to adjust to working from home and are taking on more hours away from the office for health reasons or convenience (Predotova & Vargas, 2021). But for many people, the hidden consequences aren't justified by the ostensible comfort. The organization of working hours to support work-home-life balance and the subsequent boundaries between are becoming blurred. And when the lines between home and work become blurred, the pressures of work and deadlines often consume any lifestyle activity that once brought comfort into the formerly divided domicile. It has become a meme that the coercive nature of work at home has led to unhealthy behaviours and the struggle of standing or sitting down for work to then realize it's been 9 hours and you haven't eaten anything let alone left your desk, completely consumed by the neverending pile of work – or even the latest Netflix series...

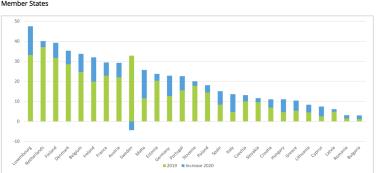
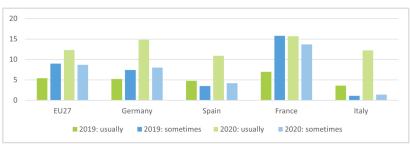


Figure 1: Percentage of workers working from home in 2020, distinguishing between 2019 and the increase during 2020, Member States

Figure 2: Percentage of workers working from home, either usually or sometimes, in the EU27, Germany, Spain, France and Italy, 2019 and 2020



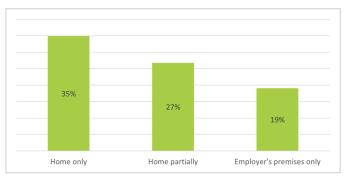


Figure 3: Percentage of employees working between 41 and 60 hours a week, by place of work, EU27, March 2021

Source: Eurofound, Living, working and COVID-19 e-survey, round 3

Current solutions to this boundary blurring and unhealthy set of habits are currently being trialed. In Belgium, employees now have the "right to disconnect" once their daily work hours have finished (Boffey, 2022). Further, the United Kingdom is testing out a 4-day workweek in the private sector (Flanagan, 2022). Tech solutions are offered as well: the myriad of wellness apps like Freedom, Apple Health, Samsung Wellbeing, and even the Pomodoro technique present ways to take breaks; it's ironic that the same smartphone providers that for years have advertised the necessity of their product, bake in features to stop people from using it. But if you're like our team, you would agree that these tech solutions aren't enough – what defines daily work hours right before a deadline, and what of the tech features that have become gamified in how quick you can disable them? Even the morning alarm clocks require at least 5 or 10 alarms to fit its purpose. These solutions are not enough, they are falling short.

And the consequences are terrifying. The worst aren't just bad habits or becoming a workaholic, there is a danger associated with this lack of freedom from work. In Japan the name for it is *Karoshi*, which translates to "death by overwork" (Hunt, 2021). A culture of boundaryless work-mania has resulted in low birth rates and people working themselves to death from either stress, sleep deprivation, social isolation, heart disease, and a myriad of other ill-fated effects.

This is not ok, this immersion is extremely unhealthy and most people would agree. So our team has taken a radical approach to this hyper-workaholic-sit-at-your-desk-all-day new era of work. We've designed a new service that is meant to get you away from your desk and enjoy life off the screen, we've created **GetOFFice**.

This has taken the form of a twist on adaptive smart furniture, drawing inspiration from hostile architecture which provides negative feedback for social coercion. The Camden Bench and urban anti-homeless spikes are designs meant to deter people from using public space – and although these methods are unethical, we're using the same ones (Mars, 2015). At the outset of this design challenge we

wondered: how do we plan to get people away from their desks, how might we use this unpleasant design for social control and coercion? Our group is pushing the limit of creativity and tolerance by pushing people away from the neverending grind of work and consumption. We want to create better time-management skills, a more fuller engagement to the real, and a better work-life balance.

This idea manifested itself into a multi-faceted solution. Our stance is to provide an extreme "torture as a service" model, which provides a home office hub that delivers innovative methods to get you to stop doing work. Users never know what to expect, only that the more work you do, the more drastic the methods will be to get you to stop. This will be further explored in the following sections.

### **DESCRIPTION OF INTERACTIONS**

GetOFFice utilizes a toolkit of methods that force the user to respond based on physical, psychological, digital, and social interactions which can be good but most often are negative as these promote change in a way that suits our aggressive ideology. The user can't predict *what* type of interaction will occur, only *when* it will occur if they refuse the central controlling hub's notifications. The full list of our interaction methods are shown below. This was a fun exercise for our team, one that we also opened up to our class peers. Unfortunately, we only received one single response which was "murder" which for obvious reasons, we did not include.

Physical	Psychol ogical	Peer Pressure (social behavio ur)	Taste	Sight	Sound	Smell	Digital	Material
Chair becomes uncomfortab le (spikes rise up or it heats up)/trapdoor opens underneath	Countdown to a pre-written resignation letter	Calls your mom who will berate you about getting a life	A meal is prepped but you must eat it elsewhere	Lights flash	Music starts playing and gets progressivel y louder	Pleasant/fav ourite food and beverage smell (coffee, bacon, baked goods, etc.)	Computer screen changes colour	Floor has spikes
Change temperature to worse	Ghost or terror element	Mother in law calls you		Screen blinds you	Annoying song starts blasting at	Chloroform for needed rest	Blue screen of death	Desk becomes "lumpy" so

conditions than outside so they're forced to go out	starts haunting the room			100%			can't type or work properly
Dominant hand is maimed if continue to use	Pillows explode feathers	Post on social media either saying you need help or join social event.		Earbuds/hea dphones/blu etooth connections emit high pitched whistle	Sulphur smell to send them running	Wi-Fi cuts out	
Static shock if you touch your keyboard	Work submits automaticall y if you don't log off	Child can control method		The "Brown Note"	Perfume sprayer, but if ignored, an aerosol fireball	Computer explodes	
Mousepad wraps around hand like a cast	Saving function breaks/draft doesn't save if you don't log off	Gamificatio n element; tie in with coworkers to see who has most steps when they're on a break. Between every meeting must walk certain number of steps				Need to defeat hard video game level in order to continue working	
Chair folds on you/changes into an impossible position	Room floods; the more you work the more water comes	Dog comes in to do its business				Emergency button shocks you when pressed	
Desk rises up to 10 feet	Car turns on and idles; if	Every meeting cuts					

**Group A/1 – GetOFFice: An Anti-Work Project** 

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In brainstorming these interactions, we straddled the bridge of what is possible and what is hypothetical in the implementation and logistics of these methods; a mindset of speculative design was much needed. We did run into some issues, however, such as the nature of a smell method – how would it dissipate when the timer allows a break? To us, we rationalized this method as a more extreme option and would only happen in a final cycle of punishment. But we figured that, in line with our stance, the smell *doesn't* dissipate because it is a consequence of not accepting the system's request to log off. Some people have asked if they can ignore the methods, and to us we say you can – but be warned. If the sound method can be blocked by headphones, then you need to get ready for the next level of punishment which would be more severe and unignorable.

The methods are instantiated in the environment of a home office in a size range provided by the client. While we prefer smaller solo home offices, we aren't indifferent to family rooms and larger offices that accommodate more people. Our methods generally skew to this single room, but we cannot rule out the future possibility of creating devious methods that involve others. The current prototype (modelled in Unity) of GetOFFice's look and feel is shown below. The first figure demonstrates the system in a more passive level and the second shows a more extreme version. The various sensors and displays are meant to demonstrate just what methods are currently being used in this scenario.



Figure 3: Home Office setup prototype with range of sensors to demonstrate interaction elements of system



Figure 4: Extreme upper limit of method instantiation; sound, temperature, sight, and smell are targeted

## NECESSARY TECHNOLOGY

GetOFFice as a service is greatly dependent on already-existing home technology for its proper functioning. The 'Cube Control' happens to be the hub from where all the action is initiated. Primarily, the cube does two things: on a more abstract level it gives the user a sense of ownership; of having a tangible product in place that helps them realize their goals. From a product perspective, it acts as a mode to give the user some feedback on the status of their work-time.

The cube is equipped with a network of sensors inside, which are further connected to the devices in the home-office like the work-computer, A/C, heater etc. Additionally, GetOFFice also provides a range of furniture and devices that complement the cube in optimizing its execution in sensory pressure. One such piece of furniture would be the 'Spiky Chair'; during usual work-hours, the chair functions like any other, however, upon use for a longer time than what is allotted, thorns start rising from the cushion of the chair making it extremely uncomfortable for an individual to continue work. Some other GetOFFice methods

(as listed above) are the flashy flood lights, noise maker, odor creator etc., which are instrumental for the desired consequentialist cube functionality.

To talk a bit more about the cube, let's explore its physical aspects and affordances. The 'cube' is modeled to look like already-existing home-assistants like Alexa, Google Home etc., but our version skews away from Google's original ethos, we are subscribing to the motto of *don't not be evil*. In that sense, the cube is the "face of the operation". It has graphical-user-interfaces equipped on four sides (rotating the cube horizontally), these four sides represent each of the tiers from 1 to 4 through which the cube deploys anti-work actions.

So, what are these tiers? The GetOFFice anti-work system is programmed to alert the user of their work status, remaining time, etc., in 4 levelled tiers, namely: code blue, code green, code grey, and code red. Each tier is more daunting than the previous one, and the goal of this system is to achieve sensory overload (latest by code red) so that the user *must* stop working.

When Tier 1 (code blue) is in action, the cube merely informs the user (through audio) that there are only 10 minutes of work-time left. In this instance, an icon that looks like a human ear is glowing on the cube's interface with the screen being blue in color indicating the status of the tier. Likewise, with every subsequent tier, the cube changes its color and also represents which sense organs out of the mentioned 4 are being targeted. In tier 2, the screen is green and the ear + eye icons are glowing, meaning there is debilitating noise being created to overwhelm the user's ears and flood lights are being flashed to create pressure on their eyes. With every passing 20 minutes, the tier levels up. In tier 3, the cube is gray in color and the ear + eye + nose icons are glowing, which is an added pressure of odor. In the last tier, code red, the cube's interface turns red and all the 4 icons on the screen, i.e., ear, eye, nose, and skin start glowing and in this example, there is pressure created to irritate the user's skin through several methods.

In order to initiate the GetOFFice anti-work system, the user will have to take some initial customary steps. Once the user brings the cube home along with the complementary torture gadgets (some of which may be installed unbeknownst to them), the user would have to set the system up by connecting the cube to the work-computer and other necessary electronic devices and pieces of furniture. Once the hardware and wiring is taken care of, the user will then have to feed in some time frames for the cube to work. One thing to note is that the time-frame between which the user can choose their working hours should be between 6 AM to 10 PM as this adheres to Austrian labor rules. The user would probably choose 6 or maybe 8 (the upper limit) number of hours between the given time-frame and then start working. The user

is allowed to set this work-time on an everyday basis, or every week or month, depending on the user's will and *enjoyment* of the system. The cube gets activated everyday at the start of the work-hour.

But how does one deal with non-work related emergencies? What if the user has to attend an immediate appointment, will they lose work time? The answer is *no*. During the work-hours, the cube which comes equipped with a gaze scanner knows when the user is looking at the computer screen and when they're not. If the user were to walk away to answer the door but still left their laptop open, the system would stop the clock. The anti-work system does not afford for an 'emergency stop' button, this decision was taken upon meticulous deliberation, the reason being the ambiguity around the notion of emergency. Maybe it's a health issue? Or even a phone call from a friend? The subjective nature of the event makes it hard for us to decide on what should and should not be an emergency. Moreover, a user could always hit the emergency stop button regardless of an emergency, thereby defeating the purpose of the system.

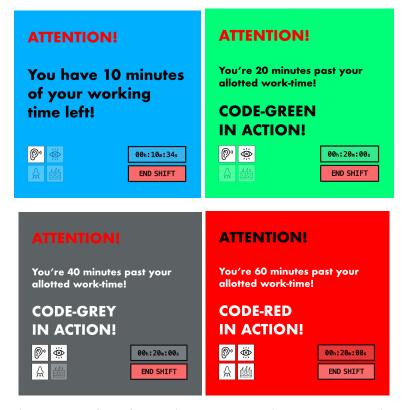


Figure 5: Interface of cube with each progressively extreme warning

# THE INNOVATIVE ASPECT

As was mentioned in the beginning of this unconventional design brief, there is a huge variety of technologies and applications dedicated to working from home. To be specific, they all can be grouped

according to their main functionalities. Some of them aim to reduce the work time and set a specific limit for each task/workday. To name a few, "My Hours," "Clockify," "DeskTime," "Hours," "Freedom," and "Screen Time" along with multiple other time trackers serve this purpose. They all have different interfaces and implementations, however, mainly all of them are either applications for mobile devices or software for Macs or PCs.

Other techniques to resist the temptation of screen supremacy consist of manuals and recommendations on how to reduce stress levels when working from home. They notify the user when it is time for a break and suggest a variety of activities for each break (meditation, physical exercises, gymnastics for eyes, etc). There are also applications that are designed to help people to stay focused on tasks (e.g. "Forest").

However, for multiple reasons, none of the mentioned systems are efficient when the user overworks. Time trackers show how much is spent, but there is no real pressure to stop people from working further; the user is mostly filled with shame or a willful indifference. Moreover, when people focus on work, they ignore notifications about breaks or postpone their alarms.

Contemporary timer solutions also block "distractive" applications (such as Facebook, Instagram, Twitter, and others). However, in the situation of overworking, work-related programs and applications must also be blocked, which is not usually the case. Here it should be mentioned that such applications have a "remind me later" or "repeat the timer" function which allows users to reset the system multiple times. In our findings, only the "SelfControl" application is an exception to this example which can be programmed to block access to certain websites of the user's choice within the given time frame. But it is not that simple, as once a person clicks "Start", it cannot be undone. Even if a person deletes the application or restarts the computer, access to the websites will not be provided until the timer runs out.

Finally, a further example of how such aforementioned systems are not efficient for workaholics is that almost all of them are applications for smartphones or some additional software for the PC that operates separately from work-related programs. It means that they all require additional actions from a user to set up a system before the workday and also to react to the systems' notifications during the work process.

GetOFFice is a system that is connected directly to the computer or laptop and does not demand extra preparation efforts from a user. Secondly, in comparison to other systems, our cube controls the whole environment in the room, not just the computer's screen or a specific website/computer program. Thirdly, similar to the "SelfControl" application, our system does not provide users with an opportunity to postpone the deadline or prolong the working time, which helps them to achieve the initial goal – not to overwork. Our unpleasant design approach is most often used in architectural forms, but our system

prides itself on its novelty in a multitude of physical and digital environments. This may also develop in ways in which people can be provoked to not use their mobile devices as well.

## FURTHER CHALLENGES AND CONCERNS

When designing a provocative piece of technology as we did, we obviously considered questions of ethics. This is a hypothetical system, yes, and sometimes ethics limit the nature of creativity – in this sense maiming or hurting our user was encouraged but in real life this would not be tolerable. One question our team continues to debate and reflect on is the nature of power in a system like this. Who initiates the purchase? Is the motivation strong enough from the user so that they would resort to methods that self-inflict pain? If they're workaholics, wouldn't they throw a system like this away eventually, or are they that desperate in seeking help such that the hub dominates their waking working life? Or does their employer purchase this for their employees? Naturally this control of power and violence in time and pain leads to many paths of philosophical inquiry that are out of scope for this exercise. These questions of subjectivity were extremely interesting for our team to ponder, but are probably unanswerable in the hypothetical design space that we speculated on.

#### References

Boffey, D. (2022, January 31). Belgian civil servants given legal right to disconnect from work. *The Guardian*.

https://www.theguardian.com/world/2022/jan/31/belgian-civil-servants-given-legal-right-to-disconnect-from-work

Flanagan, P. (2022, January 18). Four-Day Work Week Pilot Launches in U.K. With At Least 30 Companies Taking Part. *Bloomberg*.

https://www.bloomberg.com/news/articles/2022-01-18/u-k-companies-pilot-four-day-work-week-with-eye-on-productivity

Hunt, Elle. (2021, June 6). Japan's karoshi culture was a warning, We didn't listen. *Wired*. <a href="https://www.wired.co.uk/article/karoshi-japan-overwork-culture">https://www.wired.co.uk/article/karoshi-japan-overwork-culture</a>

Mars, R. (Host). (2015, May 7). Unpleasant Design & Hostile Urban Architecture (No. 219) [Audio podcast episode]. In *99% Invisible*. SiriusXM.

https://99percentinvisible.org/episode/unpleasant-design-hostile-urban-architecture/

Predotova, K., & Vargas, L. O. (2021, September 6). Workers want to telework but long working hours, isolation and inadequate equipment must be tackled. *European Foundation for the Improvement of Living and Working Conditions*.

 $\underline{https://www.eurofound.europa.eu/publications/article/2021/workers-want-to-telework-but-long-w}\\ \underline{orking-hours-isolation-and-inadequate-equipment-must-be-tackled}$