



THE “EYE” PROJECT

Unveiling the Panopticon of Big Data

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PROLOGUE

The Internet in modern society shares many similarities in transmission methods with the key player of the last industrial revolution—electricity. Initially, the transmission form of the Internet relied on metal cables carrying data through electric signals. However, after breaking free from the constraints of telephone line connections, the modern Internet relies more on wireless transmission of these electric signals and become far more efficient. This liberation from the physical limitations of electronic devices has not only allowed for technological advancements but has also extended possibilities that permeate into everyone's daily life.

This project further delves into the transformative impact of the information technology revolution, akin to the industrial revolution of the past. However, the way it extracts information from our daily lives is drastically different, and this situation often goes unnoticed. Through various practices involving data mining via different smartphone permissions and how major tech companies utilize this data to help their partners target and influence individuals, the study sheds light on the potentially alarming effects.

The portrayal of unlimited technological advancement in movies and TV series such as *"The Matrix"* and *"Westworld"* presents a frightening prophecy of a backlash on humanity caused by the misuse of superpowers created by humans, ultimately breaking

free from human control and overtaking the entire society. Regardless of the past, present, and the impending future, architecture will remain intricately linked with various forms of superpowers, becoming an accomplice in maintaining dominance.

MATERIAL

The research begins by contemplating the transmission of electricity and how it can serve as an analogy for the transmission of data. Historically, the transmission of electricity has been centralized, with power plants distributing electricity through grids to homes and businesses. Similarly, the internet has acted as a decentralized network, data centers contain thousands of servers, transmitting data across the globe. These two systems share an underlying principle of distribution.

The critical distinction lies in the collection of data by big tech companies through various smartphone applications. Due to the nature of communication, the transmission of information is bidirectional. The recipient of information is also an emitter of information, which sets it apart from the unidirectional transmission of electricity.

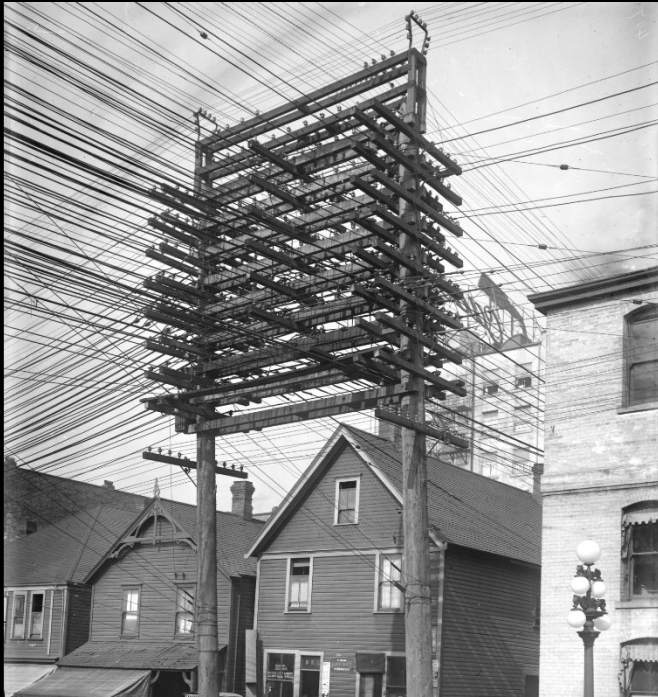


FIGURE 1. Vanalog Files. *The sky is darkened by the wiring*

This reality presents a highly enticing opportunity for the companies handling this data – the chance to record and store users' information. Electronic communication devices typically rely on two primary systems: one for sustaining their normal operation through electrical resources and the other for interfacing with external communication systems. While electricity grids do not record personal information or behaviors, the digital realm is teeming with data collection mechanisms. Our everyday interactions with smartphones, applications, and online platforms result in the generation of extensive personal data. This data has garnered increasing importance, becoming a valuable resource for big tech companies.

Furthermore, these companies have chosen to obscure the locations and operations of their data centers, shrouding them in secrecy. This opacity raises questions about data privacy, security, and the accountability of organizations entrusted with such vast amounts of personal information.

THE INFORMATION TECHNOLOGY REVOLUTION AND SOCIETAL TRANSFORMATION

Karl Marx, in his writings, particularly in the context of the industrial revolution, argued that technological advancements and revolutions in the means of production were central to social transformation. Marx's ideas primarily revolve around the relationship between the economic base of society and its social and political structures.

According to Marx, technological revolutions, especially those in the means of production, have a significant impact on the organization of society. The industrial revolution, characterized by the transition from agrarian economies to industrial economies, introduced mechanization and the factory system. This shift in technology altered the way goods were produced and transformed social relationships. Marx believed that changes in technology, particularly the way labour was organized and the means by which products were manufactured, had a profound effect on social dynamics and class structures.¹

He argued that technological advancements, while leading to increased efficiency and production, also

¹ Karl Marx and Karl Marx, *Capital : A Critique of Political Economy* (Moscow: Foreign Languages Pub. House, 1957), Voll.

led to the exploitation of the working class by the capitalist class. As we find ourselves amidst another explosion of information technology, it's undeniable that our modern way of life and the structure of society will undergo changes.



FIGURE 2. Chaplin, Charlie, and Paulette Goddard. *Modern Times*, Charlie Chaplin's *Modern times*. New York: The Criterion Collection, 2010.

UNPACKING DATA MINING PRACTICES

To delve deeper into the mechanics of data mining, the project scrutinizes the permissions we grant to our smartphones. Figure3 representation highlights the extensive access we provide to these devices, illustrating how seemingly innocuous applications gain access to our personal information. The permissions, often accepted without full understanding, reveal the extent of personal data available for collection.

Further analysis (Figure4) exposes the web of partnerships formed by Facebook, elucidating how collected data is shared and leveraged. This sharing of data among tech giants and their partners enables targeted advertising and the manipulation of user behavior for profit. It raises ethical concerns about the monetization of personal information and the potential for data-driven exploitation.

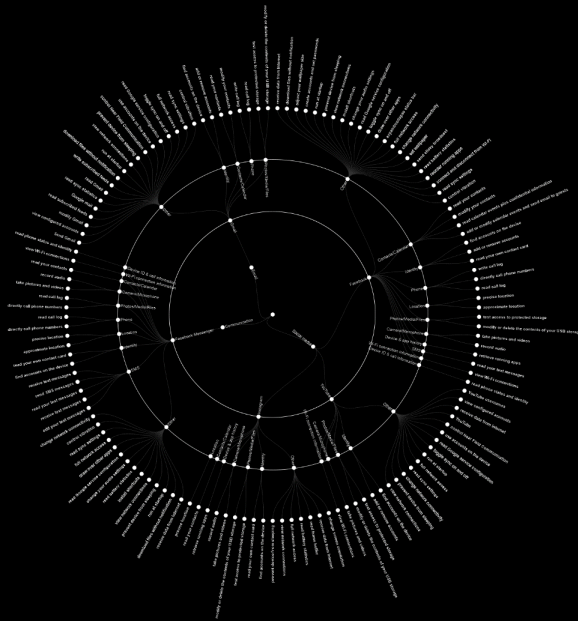


FIGURE 3. *Apps Mobile Permissions*

FACEBOOK PARTNERS

- Not Connected
- Connected (Not Verified)
- Connected (Verified)
- Connected (Management)
- Connected (Marketing)
- Not
- Connected
- Connected (10 Days)
- Connected (Admin)

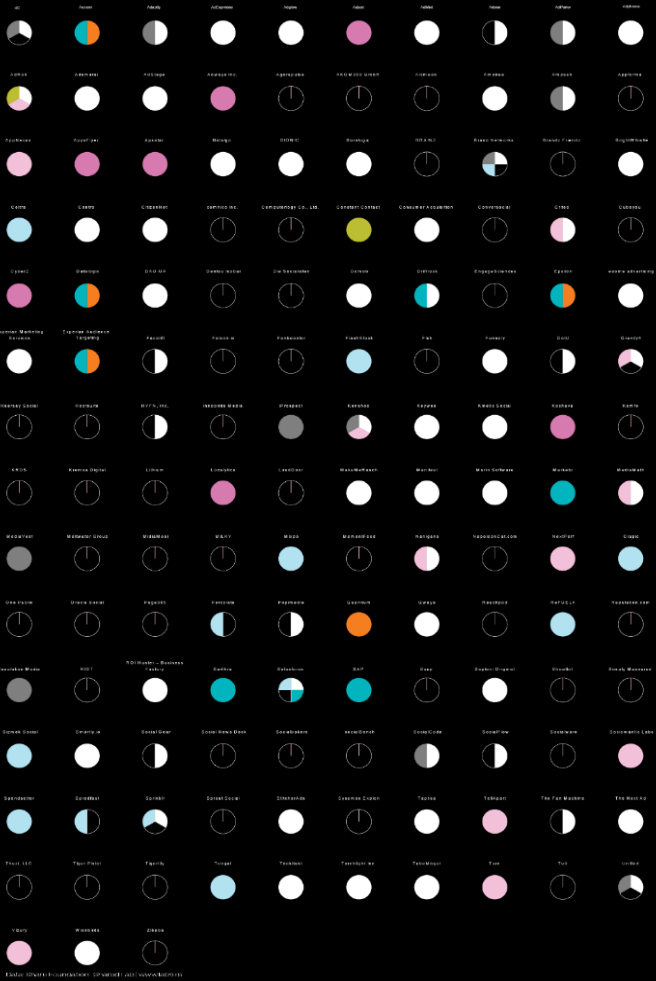


FIGURE 4. Facebook Partners

THE DYSTOPIAN REALITY OF DATA TRANSPARENCY AND SURVEILLANCE

In a society where nearly everyone carries a smartphone, individuals generate huge amount of data constantly. This smartphone, closely accompanying each person, undoubtedly stores a significant amount of personal information. It's revealed that we've surrendered substantial personal information to the realms of big data, often to a degree that surpasses our own self-awareness. As technology advances, we become increasingly transparent to the "eye" of big data. The consequences are profound; our actions, thoughts, and preferences are continuously monitored and analyzed.

Drawing insights from "*The Stack: On Software and Sovereignty*," the author believes that the structure of modern society has undergone a transformation due to the integration of information networks. Benjamin introduces the model of contemporary society as a stack, consisting of six layers, namely the Earth layer, the Cloud layer, the City layer, the Address layer, the Interface layer and User layer. He believes that Each layer in The Stack is interconnected with the others, and changes in one layer can have profound effects on the others. He also explains how data can reshape our realities, emphasizing more homogenized contexts, fueling divisiveness, and directing attention toward

particular events.² This transformation evokes parallels with popular culture references, such as "Westworld," where a central invisible tower controls and orchestrates the lives of individuals.

² Benjamin H. Bratton, *The Stack: On Software and Sovereignty*, 1 ed., Software Studies (Cambridge: The MIT Press, 2016), Psalm 33.



FIGURE 5. Nolan, Jonathan, Lisa Joy, Evan Rachel Wood, Thandie Newton, Anthony Hopkins, Jeffrey Wright, Ed Harris, James Marsden, and Michael Crichton. *Westworld*. Season Four, 2022, Episode 4.

ARCHITECTURAL VISION

“From heaven the Lord looks down and sees all mankind; from his dwelling place he watches all who live on earth— he who forms the hearts of all, who considers everything they do.”³

The project's main purpose emerges: to disclose the alarming realities of our data-centric existence, fostering public awareness and prompting reconsideration of personal data access and the dynamics of big data. This revelation finds expression in an architectural intervention, envisaged as an abstract "eye" on the Sydney skyline.

This architectural symbol serves a dual purpose. It represents the all-seeing eye of surveillance that has become synonymous with our digital life. However, it also acts as a platform for immersive exhibitions, allowing visitors to engage with the operation of data collection and manipulation directly.

³ *Holy Bible : New International Version*, (Grand Rapids, Michigan: Zondervan, 2014), Psalm 33.



FIGURE 6. Exterior Concept image

THE CONCEPT AND IMMERSIVE EXPERIENCE

The architectural concept embodies the brutality and hegemony of the big data “machine”. Visible from the metropolis area, it stands as a constant reminder of the surveillance society we inhabit. However, the interior of the structure provides an inspiring and transformative experience for visitors.

Within the "factory" section of the architecture, visitors are offered interactive devices that allow them to engage with data collection processes. This hands-on experience empowers individuals to understand how their data is collected, processed, and potentially weaponized.

As visitors ascend to the top of the structure, they encounter glass booths. Each booth features an exquisite projection of the visitor, generated from the data gathered within the "factory." This poignant exhibition vividly illustrates the extent to which personal data shapes our digital identities and behaviors.



FIGURE 7. Interior Concept image A



FIGURE 8. Interior Concept image B

LOCATION AND CONTEXT

This project is situated in Prince Alfred Park, adjacent to Central Station in Sydney, with several elevated train tracks nearby. Although still within the city of Sydney, this location stands at a significant distance from the towering skyscrapers of the Central Business District, allowing the 300-meter-plus structure to stand out in its urban surroundings. The colossal spherical structure suspended in the air not only offers a captivating spectacle for the city's residents but also underscores the emergence of new societal forces driven by technology within this city.

“Smart power with a liberal, friendly appearance – power that stimulates and seduces – is more compelling than power that imposes, threatens and decrees.”⁴

Tech giants have emerged as an undeniable force of power in modern society. They have infiltrated every aspect of people's life through apps and different types of social platforms, using the persuasive content in various apps to make individuals incessantly engage with their smartphones and electronic devices, all the while siphoning people's data without their awareness. People have become unwitting subjects of large-scale data exploitation. To underscore the novel symbol of power represented by this project, its location is deliberately distant from the bustling

⁴ Byung-Chul Han and Erik Butler, *Psychopolitics: Neoliberalism and New Technologies of Power*, Verso Futures (London: Verso, 2017), 14.

central business district. Rather than seeking to challenge the existing societal order, it stands tall amidst a cluster of low-rise buildings, embodying the new means of power acquisition discovered by tech giants. The entire architectural structure takes the form of a sphere, devoid of any sharp corners signifying aggression. Compared to the city's traditional architecture, its shape and appearance are groundbreaking and almost alien-like, yet it lacks the typical cues of threat, establishing a gentle presence in the urban skyline.



FIGURE 8. Sphere in Sydney Skyline

The entire facade of the sphere is composed of advanced semi-transparent screens, replacing conventional glass as the building's envelope. This transformation turns the entire sphere into a screen capable of broadcasting messages to any corner of the city. The unique positioning and vast screen area of the spherical display have made it a coveted advertising space for major tech giants.

Advertising on this spherical screen seems to transcend mere economic returns, serving as a symbol of a tech company's capabilities and influence. This might be a rather traditional approach, directly and forcefully presenting power and compulsory information to the public. As the Information driven society further develops, tech giants will seek more proactive information to replace their massive and meaningless logos and advertisements. Encouraging people to invest more time on social platforms, various applications, and games. This inadvertently intensifies individuals' labor for these tech giants, contributing more data unconsciously. The spherical building is supported by a mirror-finished stainless-steel structure, reflecting the entire city and sky above, concealing the support structure through its mirrored effect while implying disdain and rejection of the surrounding architectural environment. While its primary objective is to showcase new positive political propaganda, its actual interface with people is indeed cold and inaccessible, making it hard for individuals to connect with.



FIGURE 8. Sphere Street View

THEMATIC EXPLORATION WITHIN THE SPHERE

*“Today ’ s society is no longer Foucault ’ s disciplinary world of hospitals, madhouses, prisons, barracks, and factories. It has long been replaced by another regime, namely a society of fitness studios, office towers, banks, airports, shopping malls, and genetic laboratories.”*⁵

In his book "Burnout Society," Byung-Chul Han believes that Michel Foucault's disciplinary society is inadequate for describing modern society. Modern society has transformed into an "achievement society," which, in comparison to the negative aspects of the disciplinary society, offers positive encouragement and constructive guidance. Even though in such an environment, people's labor and pursuit of their goals are voluntary and not coerced or exploited by external forces, the change in psychological states has made contemporary society more actively labor for their own achievements.

Han refers to these individuals' state as "It is lord and master of itself. Thus, it is subject to no one—or, as

⁵ Byung-Chul Han, *The Burnout Society* (Stanford, CA: Stanford University Press, 2020), 8.

the case may be, only to itself."⁶ While breaking free from the rule of the disciplinary society, it doesn't lead to freedom because thoughts remain constrained within the framework of the achievement society. The excessive emphasis on work and desired achievements is increasingly severe, leading people unknowingly to become perpetrators of their self-exploitation.⁷

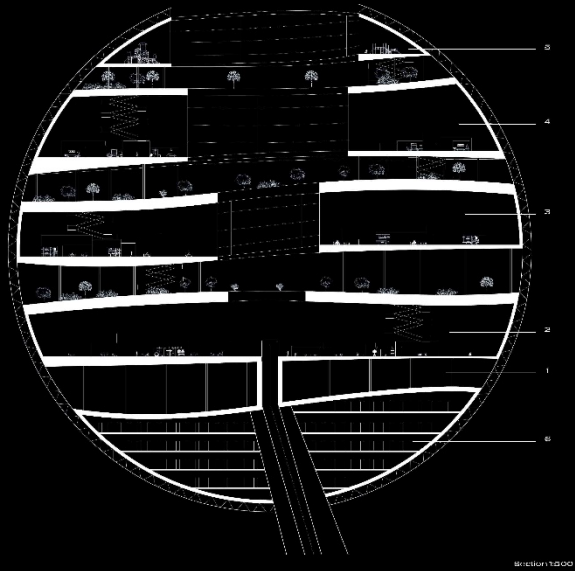
The internal environment of this project should foster a positive atmosphere, with bright surroundings, intriguing themes, and comfortable furniture. This environment will serve to motivate individuals participating in the project to spontaneously and actively engage in the entire process. Taking inspiration from IKEA, the spherical internal structure is carefully laid out with paths marked across different areas of the project. People will need to follow these guides to tour the entire architecture.

Each area should offer diverse functionalities, allowing users to experience various technological encounters while also collecting comprehensive user information through various small programs. To prevent users from feeling fatigued or becoming wary of the project's underlying agenda, it's essential to incorporate adequate relaxation areas and experiences that connect individuals with nature.

⁶ Ibid., 11.

⁷ Ibid., 35.

Access to the thematic exploration within the spherical building is achieved solely through an elevator connected to the ground entrance. Upon exiting the elevator, visitors enter the "Living Level," where they receive an electronic device to carry throughout the high-tech human experiment within the building. Participants progress upwards through the "Eating Level," "Resting Level," and "Kids Playground." Sky gardens between each experimental level provide spaces for relaxation and respite from the intensity of the technological immersion. Each experimental level guides individuals through various games and engaging experiences while collecting their personal information. As participants ascend, the gathered personal information becomes increasingly private and sensitive.



1 Exhibition Level 2 Living Level 3 Eating Level 4 Resting Level 5 Kids Playground 6 Data Center

FIGURE 9. Sphere Section



FIGURE 10. Sphere Living Level Plan

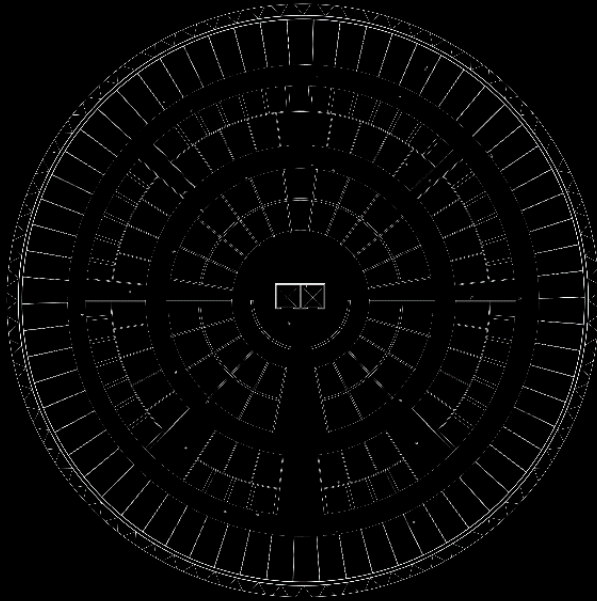


FIGURE 11. Sphere Exit Level Plan

At any stage, participants have the option to terminate their experience and choose to exit at the "Exhibition Level." Here, participants witness how their information is processed and utilized for various purposes. Countless small rooms employ AR projection technology to showcase each participant's most private habits or social secrets. This transparency is a demonstration of how the data center uses individuals' data – do they fearlessly expose their ugliness and unethical behavior, or have those possessing this data become unbridled in showcasing their personal information to the world? Among the hundreds of rooms, there are thousands of ways data is used, complex algorithms that may not be comprehensible to an individual, much like scrolling through hundreds of terms and conditions when using software and simply clicking "Agree" due to the constraint of time. Can you now truly understand what all this data is being used for? This may be a question that every individual needs to ponder.



FIGURE 12. Exit Level Render



FIGURE 13. Living Level Render

EVOLUTION

In contrast to a singular structure standing in the city center, turning this building into a replicable series seems to better encapsulate its significance. A distinctive structure that can appear anywhere, it embodies technology and progress, deeply captivating people. However, it is also a colossal machine continuously processing data for tech companies. It functions as a factory, utilizing new technologies to harvest people's intellectual resources. Moreover, it stands as a symbol of power, proclaiming its dominion in the realm of data to the surrounding buildings and people.



FIGURE 14. Suburban Version Sphere

Above the vast suburban landscape, multiple spherical structures float over various communities. In these monotonous and dull suburbs, they provide the local community with a center for entertainment, relaxation, and interaction with new technologies. In a future world where everyone develops an envious dependence on technology, the internet, and the virtual world, the "New Ark" becomes an oasis for the local community, much like the shopping malls that sprouted in every new suburban area in modern times.

It becomes a refuge where one can escape and forget the pains and hardships of real societal struggles. These prominently suspended and replicable architectural structures also serve as dominating machines for tech giants, rapidly occupying and enveloping the local human and spiritual world in the new center of human life.



FIGURE 15. The Nomad Version Sphere

In the vast heartland of Australia, the boundless red earth remains uninhabited. The arid environment has driven humans and animals away from this land, yet it is the most suitable breeding ground for machines. The dry conditions and uninhabited areas make data here more secure. The interior of the spherical structures has been modified, no longer requiring structures that accommodate human entry. This is a pure machine, equipped solely for the proliferation of data within its confines.

The entire outer wall is covered in solar panels, harnessing the scorching sunlight and converting it into energy to power the internal machinery. It integrates a satellite network connection system to ensure continuous data transmission and storage in this extremely remote area. Most of the building space is used to install data storage equipment.

This area was once a cultural desert, and in the future, even when humans pass through, it will still appear as a desolate landscape. However, the databases floating within the spherical structures record a highly developed human society. It stands as the ultimate weapon of conquest, conquering realms that were once beyond human reach. It represents the one and only superpower in this land.



FIGURE 16. The Urban Version Sphere

At the heart of the metropolis, there has always been a battlefield where various superpowers struggle for dominance. Politicians, capitalists, and underground organizations each invest efforts to sway their followers, making people believe in their own stories or ideologies. Of course, tech giants cannot overlook this crucial battleground either. In the face of old power structures, mastering the art of struggle is necessary. Infiltrating this battle in a more subtle way might be a smarter move.

The spherical structure, this time, becomes a hemispherical building, concealed underwater. Nestled in the heart of the Darling Harbor, its mirrored surface reflects the surrounding environment, creating perfect camouflage. In this densely populated metropolis, it's evidently the tech giants' prime resource. How to attract people voluntarily into this building and expand its surveillance network becomes its primary duty. Thus, instead of a purely mechanical entity, its interior leans more towards being an exhibition center, showcasing new technological advancements. Given its geographical location, political propaganda is of utmost importance.

THE ULTIMATE SPHERE

This is the ultimate form of the Sphere – “New Ark”, in the year 2070, fifty years from now. The dominance of the new social power is wielded by the collective might of tech industry giants, representing the force of information technology. Hovering above the public lies not only an absolute power over data but also a newly equipped technological edifice.

In Sydney's Prince Alfred Park, a giant spherical structure floats above the entire park area. It has the latest materials and power technologies which allows this immense construction is suspended in the sky. A several-hundred-meter elevator column connects its core to the ground-level entrance, enveloped by numerous metal columns supporting the entire body. Like strands of a spider's web, cables descend from the opening of the spherical edifice, with their other ends linking to random buildings within the city. Just like an umbilical cord connecting a mother to her infant, these cables provide continuous nourishment to this data center.

Beneath the structure, all the metal support structures diverge, with over a hundred metal support columns anchored into the ground. These columns encircle the elevator shaft, forming a square temple. The temple's all-white walls and the soaring white structure piercing the clouds in the park's center make it difficult for public not to notice its distinctive appearance and wonder about its inside.



FIGURE 17. Park View of The New Ark

ENTRANCE HALL

Entering the interior of the entrance hall, it's evident that the materials used in this structure are quite uniform. One can only spot the use of white and metallic hues integrated into the building's framework. White columns extend upward, converging in the center of the hall, supporting an immensely tall frame that looms over the entire entrance hall. Any metal columns within the hall have a chrome surface. As people approach these columns, they encounter only their own reflections. Despite the columns extending into the interior of the spherical building, they remain unaware of the information transmitted within. Positioned at the hall's center is the only entrance leading to the spherical main architecture. The entire vertical lift well is encased in metal panels, leaving a small door that connects to the ground. From this solitary door emits a pristine and unknown brightness, evoking both fear of the unknown and a desire to explore the uncharted.



FIGURE 18. Entrance Hall Diagram

LIFE AND MACHINE

Diverging from its previous iterations, the ultimate form of the spherical building has undergone significant evolution from every aspect. The human living spaces within have been compressed, and vast areas of greenery have been eradicated. More space has been allocated as rooms for housing super computers and data storage. The inner rings of each level serve as areas for public visits and tours, while the outer rings are entirely enveloped by dark service rooms. This suggests the integration of contemporary life with technology, signifying a multitude of machines operating behind the scenes, unnoticed in our everyday lives, to sustain modern living. It also implies that human life is being taken over and monitored by machines.



FIGURE 19. Axonometric Diagram

The entire exterior of the spherical building is enveloped by a high-definition spherical screen, beneath which numerous surveillance devices are installed. Hidden under the screen, these devices monitor the entire city, not only capturing images visually but also intercepting information from all communication signals. Due to its geographic location and height, this function is advantageous for this ultimate machine. Most of the time, the spherical screen projects the identified ambient environment onto its entire surface, blending into the sky. It conceals its massive form and monitors within the cloud cover, observing all activities in the city. In contrast to the previous version of the spherical screen, filled with product advertisements from tech companies and game promotions, the current era presents a different scenario. People have grown accustomed to algorithmic guidance, and algorithms fueled by big data have meticulously planned the human societal narrative decades into the future. Only when surprise and uncontrollable events are detected does the screen activate to disseminate information outward, maintaining the perfect storyline.



FIGURE 20. City Bird View

Concentric Plan

Each level's center is hollow, forming a massive atrium where natural light filters from the building's roof to illuminate every level. Surrounding the atrium is the area designed for visitors, or what can be termed as a modern "sweat factory." Unlike traditional physical labor, this factory demands intellectual labor, aimed at extracting data and information from the human brain. As all the physiological energy is channeled into the brain, it must not impose burdens on other physiological organs, such as requiring extensive muscular activities. Thus, each level's design caters to extreme physiological comfort, equipped with 24-hour bedrooms, unlimited food and drinks, ubiquitous format sofas and recliners, and storage stations for various peripherals. While physiological desires are greatly satisfied, individuals develop a dependency on this "paradise" and become unwilling to leave this comfortable place.

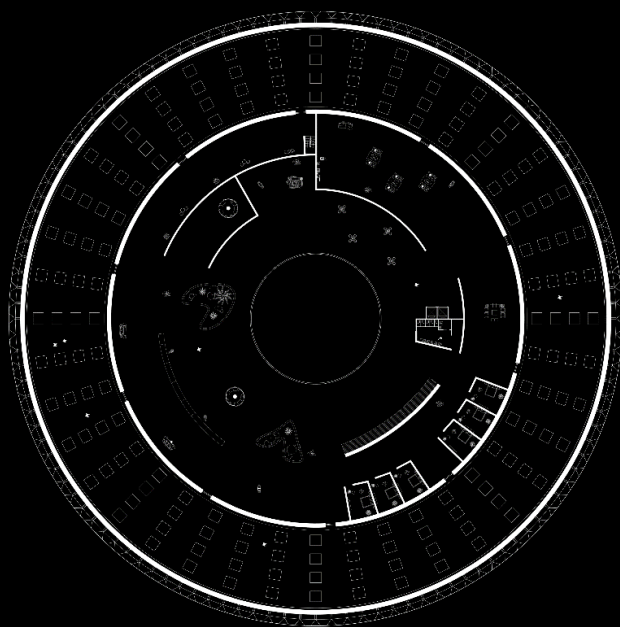


FIGURE 21. Typical Floor Plan

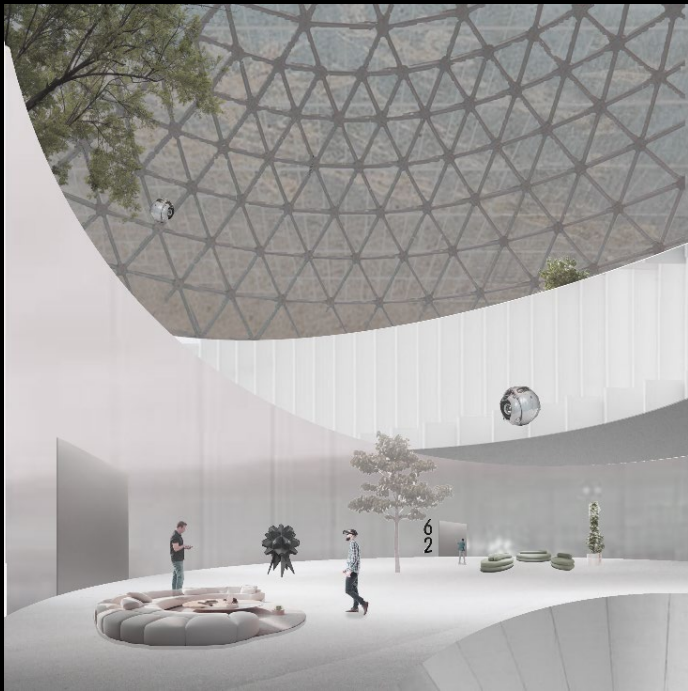


FIGURE 22. Typical Floor Diagram

Beyond the walls of the paradise, lies a room packed with supercomputers. Access to the computer rooms is granted through metallic doors embedded in the factory walls. However, entry to each section of the computer rooms is restricted, permitting individuals only a single visit to the same section.

The internal environment of the computer rooms stands in stark contrast to the "factory." The primary function of the machines here is to collect data generated by individuals in the "factory" and utilize this data to run various projects in different sections. Towering supercomputers, safeguarded by metal panels to protect the delicate silicon components from physical damage, stand on the ground. The metallic properties are utilized to dissipate the heat generated by the silicon chips. The entire wall is partitioned into thousands of small screens, displaying the current running status for monitoring and maintenance purposes.

Another function of these rooms is to comply with government regulations and ensure information transparency. Individuals participating in the "labor" within the entire spherical building are informed that their information will be collected and analyzed. This space is designed to provide detailed information and obtain people's understanding and consent through visual displays and virtual reality for the selling of their information.

However, in this dark and overheated environment, no one wishes to linger, for just beyond the wall lies a seemingly paradisiacal place. Most people's choices might entail glancing briefly and hastily returning to the other side of the wall. It's akin to a future version of lengthy terms and conditions—signed and agreed to hastily in people's fervor for pleasure. The projection of people in the glass room via virtual reality, while showcasing incredible new technology, also embodies a sense of irony. Most individuals fail to realize that their lives are already ensnared in a cocoon of information, much like the virtual projected person displayed in that room.



FIGURE 22. Computer Room Diagram

UPON LEAVING

Life within this spherical building is exceedingly blissful for individuals, both physically and mentally. However, regardless of how much people may wish to stay, there comes a moment when they will leave. For various reasons, whether it's family, work, or a longing for nature. Nevertheless, there are individuals who develop an extreme dependency, becoming 'residents' or 'hobos' within this architecture. Surprisingly, the giant tech companies don't mind this, as compared to fulfilling people's physiological needs, the information stored in human brains holds more value. Residing within this structure essentially means becoming their 24-hour employees.

Yet, when machines take over our lives, is our life and existence still our own? When machines possess the ability to guide us mentally, how do we ascertain that our free will remains unaffected by these machines?

CONCLUSION

In merging architecture with social commentary, this project aspires to ignite a collective realization of the profound changes in our society due to the data-driven information revolution. The abstract "eye" in the Sydney skyline serves as both a symbol of surveillance and an opportunity for introspection. It challenges individuals to consider the implications of data transparency, surveillance, and the power of technology companies in shaping our lives and behaviors.

By shedding light on the intricate web of data collection, this research aims to empower individuals to reclaim agency over their data and privacy while encouraging critical discourse on the ethical and societal implications of our data-driven world.