Speculating Smart: An Ambiguous Image Object

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Abstract

TWIFSY (The world is fine, save yourself) is a media art installation designed to stimulate thought about how urban life, which is increasingly mediated by opaque black boxes and artificial intelligence algorithms, may one day manifest in the future Smart City, where time and space have collapsed into a dystopian post-human virtual world. *TWIFSY* is concerned with the implications of the current sociotechnical paradigm of surveillance capitalism—the automatised monopolistic power and control over Big Data by Big Tech and the transformation of personal information, including human needs, mobility, beliefs, thoughts, and expressions into a capital commodity.

The creative practice uses speculative design methods to initiate a debate for preferable futures over the undesirable and destructive market-driven forces of the past and present to inspire change before the future happens. *TWIFSY* evolved as a thought experiment that speaks to the speculative cultures of science-fiction, futurism, literature, politics, and film. It offers citizens a space to free their imagination from the pragmatics and preoccupations of day-to-day reality. The work's visual language stems from post-digital aesthetics of failure, where the detritus of digital technologies become raw material for a subcultural do-it-yourself approach typified by the maker and post-digital hacker movements.

Keywords

Post-digital art practice, speculative design, Smart City, surveillance capitalism.

Introduction

This paper discusses *TWIFSY (The world is fine, save yourself)*. This media art installation questions how digital networks transform human perceptions and how we define our relationship to reality and experiences of time and space at the intersection of real and virtual worlds. The exponential acceleration of time and fragmentation of space have detached us from the 'concrete' realities of the natural world, and we exist everywhere and nowhere simultaneously. [1] We are now transitioning from a human to a post-human condition where humans and non-humans, the real and the virtual, have merged, and those controlling the networks can easily shape our socio-cultural relations and perceptions into multiple and simultaneous 'hyperrealities'. [2]

With the onset of the Fourth Industrial Revolution (4IR)–the fusion of the physical, digital, and biological worlds, and the rise of artificial intelligence, biotechnology, smart systems, robotics, machine-to-machine communication, the internet of things, and quantum computing–the transformation of humankind is so profound that 'there has never been a time of greater promise or potential peril'. [3] These technologically determined phenomena are intended to influence and modify human behaviours, which degrades human rights in exponentially new and obfuscated ways with irreversible consequences. As the biotech and infotech revolutions conflate and humans and machines merge, the flows of information from the body and mind to smart machines via biometric sensors and algorithms will allow Big Data-enabled corporations and governments to make decisions on behalf of citizens and modify their behaviours, outside of democratic and regulatory processes possibly in real-time. [4] This situation might occur in ways that allow machines to enslave humans or jeopardise the survival of the humans who choose to disconnect from the networks. [5]

Surveillance capitalism

Surveillance capitalists, most notably Google and Facebook (rebranded as Meta in 2021), and more recently X (formerly Twitter), Snapchat, and TikTok, extract surplus data derived from online human behaviours, personal needs, beliefs, thoughts, and expressions–a previously hidden asset class of raw materials 'created out of thin air at zero marginal cost' –and use it to monopolise the internet and eliminate competition. [6] The mass automated aggregation, analysis, cross-referencing and manipulation of Big Data–search, website visits and clicks, social media interactions, online purchases, account logins, geo-location data and digital imagery–enables engineers, scientists, politicians and entrepreneurs to make social, political, economic, and legal claims, [7] influence the voting behaviours of millions of people, [8] and leverage user profiles for social media post-truth public relations campaigns, [9] to persuade and mobilise populations without their knowledge, [10] and in potentially unlimited ways. [11] Moreover, Big Tech companies that systematically evade media regulation have never been voted for and protect themselves by lobbying and influencing government officials to exercise network control. [12]

In 2009, when Google introduced personalised search, their algorithms were developed to predict how we encounter information, suggest different results for individual users and create unique, optimised 'filter

bubbles' depending on a user's likes, needs, wants, and values. [13] When Big Data is aggregated, compiled, and analysed to gain insight into users' habits, preferences, and beliefs, it empowers advertisers to segment and target them with formulated media content they will agree with rather than disagree with. [14] However, advertising is a short-term means to an end for Google and Facebook because the immense accumulation of data, which gives them the power to 'hack all your desires, decisions and opinions' and 'know exactly who you are', is worth far more in the longer term. [15] This unsustainable plan is based on greed and narcissism in exchange for convenience and free services, and–if it backfires–will further degrade the middle classes, lead to hyper-unemployment and social chaos, and will break capitalism because the world cannot absorb the cost. [16] Moreover, if this technological revolution escalates and destroys the job market, it will create a massive class of billions of 'irrelevant' people, with social and political consequences that may be impossible to overcome. [17]

Complicit society

Despite society's progressive awareness of hegemonic technical apparatuses that use data for economic gain by fueling human desires, it continues to surrender privacy, trust, environment and sovereignty for increased speed, interactivity, efficiency, immediacy, digital entertainment, and interpersonal connectedness. Society's complicity with surveillance capitalism results from the human desire to be seen and heard, to express one's existence, and to belong and have agency within a community. When thought can be freely expressed in public spaces of appearances, we are not deprived of a public reality where our actions appear significant because of perceptions of what is important to others, which, in contrast to life in private worlds without others, leaves people feeling as though they exist. [18] However, when the distinctions between the private and public are blurred, and people transform from individuals into citizens of a conformist society with common interests and opinions, this leads to the normalisation of the behaviour modification that makes people behave in specific ways governed by the rules of others, which leads to social inequalities. [19] As human existence mediated by networked virtual spaces and location-aware technologies increases, along with the power of those that design, centralise, and control them, we may see a condition where being invisible to the networks or disconnected from them creates a sense of anxiety that is worse than Orwellian surveillance, which 'provides the conditions for one to be mastered by the network'. [20]

Ideally, the links between public and private life, where society debates critical social issues, should be kept separate from the state and the economy so that democratic discussion and public opinion can challenge or influence the state. [21] However, state and non-state actors use social media platforms to create global disinformation, misinformation, and fake news at a scale and sophistication previously unmatched. The Russian Internet Research Agency (IRA) influenced elections in the United States by manipulating information surrounding the 2016 US presidential elections, and the Communist Party of China (CPC) used Twitter (rebranded as X in 2023), Facebook, and YouTube to attack its political opponents by changing the narrative surrounding protests by Hong Kong citizens to influence the international community's opinions. [22] Facebook colluded with Cambridge Analytica to influence the UK referendum on whether to leave the European Union, which led to the United Kingdom withdrawing from the EU in January 2020. [23] Hundreds of US law-enforcement agencies use discriminatory facial recognition, social media image databases, and AI–all developed by private corporations–to identify and target individuals [24] who are often falsely identified in police searches—particularly Asians, African Americans, and Native Americans. [25] The concealed data aggregation, analysis and cross-referencing of global data, including personal communications, stored in the NSA's Utah Data Centre, where it is captured, deciphered and analysed, [26] disregards privacy rights [27] claiming citizens' rights do not apply to 'modern-day lives'. [28]

Furthermore, society's complicity with surveillance capitalism's exploitation of advertising–the most extensive campaign to mould consciousness in human history–has led to vast over-production of commodities that we do not need and obscene energy consumption levels with dire consequences for the natural world. [29] Capitalistic competition for data control has created a global corporate media apparatus that has become a 'rapacious despoiler of the Earth', because it requires massive amounts of energy, which poses a significant environmental threat. [30] Cryptocurrencies alone, which now drive a speculative culture of commodity fetishism, can catastrophically impact the natural environment. Bitcoin's annual global energy footprint is 'comparable to the power consumption of Sweden' and 'the carbon footprint of Serbia and Montenegro'. [31]

The Smart City

TWIFSY (The world is fine, save yourself) aims to stimulate thought and discussion about the implications of corporate influence over the future Smart City and how aspects of technologically determined logic will affect urban development when surveillance capitalists use their technologies in public space.

The Smart City, which is conceptualised as digital and intelligent [32] is a 'new paradigm' of hi-tech infrastructure where ubiquitous computing shapes urban life [33] by interlacing or overlaying objects and people with digital networks [34] mediated by algorithms embedded into everything, to sense and communicate information and generate real-time data flows. [35] The exponential power of computing offers transformational opportunities in the urban environment because user-generated data and artificial intelligence can connect devices and people to generate digital information layers that change how citizens behave. [36] Social media networks and city apps are used to enable 'civic participation and social commentary' in the Smart City. [37] Therefore, there is a clear risk of influence from technologists when they become involved in providing services, often presented as solutions to 'crises' of pollution, congestion, overcrowding and crime. [38] Urban planners, investors, and governments often consider 'smart' or 'resilient' urban infrastructure as the 'potential salvation' to economic crises and natural disasters. [39] This influence affects citizens' behaviours

and how cities are designed and constructed for them. [40] Existing experimental smart cities include Masdar City in the United Arab Emirates, a failed utopian zero-carbon 'science fiction project' in 'a world struck by climate change and energy deficiency', and Songdo in South Korea, a fantasy of developers' corporate interests as an optimised 'demo for urbanism' designed to test the 'feedback loops between market research, personalisation, and product development', which are 'colonising our ability to imagine the future of human life'. [41]

Thus, the 'smart everything paradigm', where people become part of network structures, presents private enterprises and governments with opportunities for capitalising on data collection of citizens' behaviours toward the city's future development. [42] This issue raises concerns about governance, transparency, and accountability in the management and design of public spaces when 'non-democratic actors' are not held accountable to the public. [43]

A speculative post-digital hack

TWIFSY is a creative response to concerns about the management and design of public spaces, with the intention of resistance to the commodity logic behind the un-democratic top-down encoding of public spaces for efficiency and consumption and modifying citizens' behaviours in the city to these ends. *TWIFSY* functions as a discursive speculative design for a utopian-dystopian future Smart City, a 'non-place' where the effects of techno-globalism have reached a tipping point, and public spaces mediated by algorithms have been reduced to a simulation, a pure and simultaneous form of information communication, circulation, and consumption in real-time. [44] The work is considered 'resistance', which, for urban media artists, is 'the strongest discourse' to connect aesthetics to the politics of concealed technologies, predictive data analytics and the invisible surveillance of public space, where artists can use the tactics of the Situationist International, which reacted against advanced capitalism's 'social alienation and commodity fetishism', as a response to threats to democracy. [45] These tactics are also used to raise ethical awareness of dominant technologies. [46]

Speculative design methods

TWIFSY (The world is fine, save yourself) uses speculative design, which is more an attitude than a methodology that opens possibilities for futures that are preferable to past and present realities by challenging the 'uncritical drive behind technological progress, where technology is always assumed to be good and capable of solving any problem' and unlike conventional design methodologies, is a slightly subversive 'parallel design channel free from market pressures' used to critique and 'explore ethical and social issues within the context of everyday life'. [47] Like other speculative cultures, such as futurology, literature, politics, and fine art, speculative design goes beyond logical and pragmatic world-building to create a space for the 'dialectical opposition between fiction and reality'. [48]

TWIFSY manifests as an ambiguous post-digital image-object that functions like prototypes, props, puzzles, and models to provoke speculative conversations about multiple possibilities for the 'near-future worlds'. [49] *TWIFSY* gestures to the history of speculative concept models, exemplified by General Motors Corporation's (GMC) *Highways & Horizon*s exhibit and at the 1939 New York World's Fair. The GMC dioramic installation, also known as *Futurama*, was designed by Norman Bel Geddes. It speculated on futural solutions to economic, social, and political problems during the post-depression period to instil a sense of stability based on hyper-consumerism. This state-endorsed corporate vision promised to overcome unemployment and social divisions at a time when the emergent forces of fascism and communism compounded fear, uncertainty, and instability. [50] The vastness of the *Futurama* scale model is evident in its propaganda film *To New Horizons*, which proclaims General Motor's 'victory over space' in 'a future that can be whatever we propose to make it […] where we are going to spend the rest of our lives […] in the great American way'. [51] However, these speculative premises of a super-industrialised society became the post-war urban and suburban realities of overproduction and consumption, which are now widely considered unsustainable and catastrophic to humans and the natural world. This is largely because the power relations and decision-making processes responsible for the planning and construction of 'hierarchical' cities are conducted by a small minority, and usually excludes end users. [52]

Subversive mimesis as multiversal fiction

TWIFSY's mimetic aesthetic metaphor is the network effect, where many participants in a computer network increase the value, size and critical mass of a platform controlled by a small minority that can progress regardless of legal frameworks. [53] In this vein, *TWIFSY* intimates what Benjamin Bratton conceptualised as the 'Stack', an 'accidental megastructure' born from 'planetary-scale computation' that manifests as a machine world comprising layers of hardware, software, chemical, and electrical systems that consume and distort the earth into a new geopolitical power structure where citizenship will become a 'global aggregate urban condition' within a 'vast, discontiguous city' of 'perplexing grids' and 'data archipelagos' (see Figures 2-11). [54]

Here, authentic social life and the natural world have been displaced by appearances where 'all that once was directly lived has become mere representation', and the domination and commodification of humans prevail as 'an immense accumulation of spectacles', a 'faithful mirror held up to the production of things', which distorts and reduces an individual's being to the 'prestige of having', which alters how appearances and meaning within society are formed. [55] In this dystopian future world removed from nature, humans can only imitate each other, which leads to increased rivalry, conflict, and an infinitely more complex society that eventually breaks down. [56] This mimesis was born from depleting the natural world and the human desire to acquire and possess artificial objects that others desire even more–the basis of the constant stream of behavioural modification advertising that activates imitative behaviours by communicating 'shortage' to produce desire and envy–with the promise of an escape from 'the mundane horde',

where those in possession of the desired object will achieve exceptionality, uniqueness and originality, which is a paradox because 'imitation and originality are mutually exclusive'. [57]

TWIFSY mimics the technological objects associated with it and manifests as a hacked-together post-digital image object informed by the contemporary condition where physical space has collapsed into the virtual. [58] Surplus digital objects and materials were appropriated, repurposed, and hacked together (see Figures 1 and 4). Adopting post-digital 'aesthetics of failure' principles, [59] the work emerged from digital and non-digital media glitches, including corrupt image data errors and malfunctioning data servers, which were remixed into an array of twenty-four illuminated box panels configured as a translucent monolith (see Figures 10 and 11). *TWIFSY* consists of 121,000 hand-assembled components–a mass of recycled e-wasted computers, laser cut acrylic, 3D printed resin figures, steel, glass, LEDs, speakers, an amplifier, ethernet, DMX512-A and Art-net software protocols—remnants of a utopian 'digital revolution' now reduced to the 'banalities' of everyday life. [60] This 'post-digital' work is an analogue derivative of the virtual world-building paradigm, exemplified by Minecraft, to help provide meaning to 'the abstract materiality of the digital' by drawing attention to the structures that make it possible. [61] This approach contributes to the post-digital hacker movement that dismantles, repurposes, and reconstructs technologies and systems to reveal the digital world's 'hidden teleology'. [62] Unlike the high-performance information communication technologies used undemocratically by surveillance capitalists and the sophisticated hardware from which the work's form originates, *TWIFSY* appropriates a 'slow technology' design agenda expressed as an 'art object', which aims to calm and reduce cognitive load by lowering the demand for attention–without capturing and commodifying it–to give people time to think, be productive, and do new things, rather than consume. [63]

The final post-digital image object (see Figure 10) implies different things depending on the viewer's position and motion. From a distance, it beckons like a glowing lighthouse—an 'asterism' of digital material culture resembling 'aerial photography of landscapes and cities' providing a 'distant reading of society and everyday life' as an organised collective of 'functionally linked individuals' (see Figure 5). [64] Its shifting colour spectrum creates the illusion of a distant satellite-like moving image, which can be decoded through a mobile phone or camera device screen, which reduces the 8mm x 8mm x 3mm acrylic pseudo-pixels to a scale and resolution that is continuous and perceptible to the human eye. As the viewer moves toward the image object, a GIF-like figurative representation of an ancestral being enlarges beyond recognition (see figures 1, 7 and 10). It flickers, glitches, and gradually dissolves, giving way to the hidden world beneath. At proximity, pseudo-architectural spaces reveal many details of a world populated with hundreds of tiny translucent 3D-printed resin human-like figures, much like the render ghosts in architectural renderings and models. *TWIFSY's* citizens are arranged in differing scenarios, with multiple cloned avatars of themselves on variable scales. Some preen narcissistically, others voyeuristically watch on, and more wait in hypnotic anticipation of something about to happen (see Figures 6, 8 and 9). They exist in a society that embraced the libertarian rhetoric of freedom and populist claims of social connectivity by the Big Tech companies that succeeded in capturing, centralising, and controlling the streaming networks of the Smart City.

As *TWIFSY's* citizens evolved and adapted, they developed a nigh-omnipresence that–depending on their geo-location, status, associations, whims, and desires–enables them to exist simultaneously in a multiverse of infinite personalised re-constructions of existence projected back into the city as imagery in real-time by predictive algorithms. The city has become a perfect 'non-place', where the circulation of information is exacerbated by pervasive communication and networked information technologies that link all parts of the globe to such a degree that a consumptive audio-visual life is lived entirely independently of the immediate surroundings and the 'anthropological places' where social bonds' were once inscribed in everyday life. [65]

Post-digital civil hacking as placemaking

How an audience perceives and relates to the work depends on its installation site and exhibition context. The twenty-four modular panels can be configured according to the specificities of their installation site, whether in outdoor public space, interior gallery spaces, or other institutional or commercial spaces (see Figures 10, 11 and 12). *TWIFSY* uses 'relational aesthetics' relative to its reception site and audience [66] to stimulate community discussion about privacy and trust in the future city and facilitate informal, inclusive, collaborative, and imaginative interactions with a broad non-specialist art audience. In each instance, the work aims to connect with an audience by providing an embodied experience of the artwork's physical aura, which would otherwise be shattered through its exponential reproduction across digital platforms. [67] This approach aims to provide an experience that supplants standardised experiences in the proprietary virtual worlds that systematically reduce unique real-world experiences to data representations on ubiquitous smart device screens, which Big Tech can leverage to manipulate subjects' real-world activities effectively. Instead, the audience's perceptions can be momentarily shaped through 'corporeal aesthetics', [68] where the body's relationship with the image object forms a spatial intensity that functions as a resistance to reason and literal meaning. [69] In institutional settings such as art galleries, citizens are invited to collectively construct a bottom-up social dream for a preferred future through world-building workshops. A ludic *Play Station* invites visitors to assemble physical maquettes from *TWIFSY's* surplus of prefabricated Lego-like pseudo-pixels, microgrids, 'human' figures, and other Meccano-like acrylic structures and experiment with luminance, colour, and mood on the remotely controllable backlit panels. A participatory *Dream Wall*–backgrounded by the installation, video projections of the works' internal details, and an immersive soundscape that emerges from *TWIFSY*–invites citizens to leave written notes, poems, questions, or protestations that explore 'the power of personal introspection in public space and what we can learn from our collective wisdom'. [70] In public urban spaces, the work is proposed as a hybrid form of

'placemaking' —the reimagining of the public realm where community connections to shared places are strengthened by seeking citizens' participation with 'the physical, cultural, and social identities that define a place and support its ongoing evolution'. [71] In commercial urban centres, the work borrows from 'civic hacking' —a playful, exploratory, and slightly transgressive approach to design interventions that use 'hackability' as a measure of democratic inclusivity and legitimacy. [72]. The works' first installation site, selected by ISEA2024 and the Brisbane City Council, is the pedestrianised Queen Street Mall in the Brisbane City central business district. The Queen Street Mall is approximately 500 metres long, with six major shopping centres and more than 700 retailers over 40,000 square metres of space. Within the malls' existing retail windows, the installation provides an opportunity for civic hacking, where the work can operate as an antidotal visual synecdoche—a small urban intervention to counter the advertising agendas that populate the visual amenities of the city. Here, the work is dislocated from the virtual world and, potentially, from Big Tech's concealed surveillance—assuming audiences engage more with the works' physicality and resist reducing it to digital media and behavioural surplus data. However, the aims of communicating the research concerns on this site and its hackability to inspire social, political, or economic change regarding broad complicity with surveillance capitalism are limited due to the mall's orientations, which are inherently designed for consumption and entertainment.

Thus, future hybrid iterations of *TWIFSY's* exhibition will focus on art-based and community engagement activities that directly engage the public, institutions, and corporations in debates about surveillance capitalism's future social, political, and economic impacts on the city. Moreover, until significant changes are made to regulatory frameworks, concerns about surveillance capitalism will continue to drive this activity. While the bottom-up, place-led relational approaches with the public aim at a democratic ripple effect, the trickle-down effect of top-down regulation–ultimately required for change–will invite participation from governments, regulators, and Big Tech.

Conclusion

TWIFSY (The world is fine, save yourself) is a post-digital image-object that uses speculative design fiction and resistant art practice to draw attention to and subvert obsessions with the digital and stimulate discussion about surveillance capitalism. Transgressive mimicry and resistance tactics were used to repurpose e-waste materials into a paradoxical, ambiguous image object. Over four years, surplus data and technological objects were progressively decomposed and reconstructed into an accidental, ambiguous, hacked-together metaphor for the invisible and invasive network effects that progressively transform society. *TWIFSY* questions how technologically determined futures will transform human existence. Specifically, *TWIFSY* is concerned with how perceptions of time, space, and matter are perceived as the production and consumption of capital commodities that progressively subordinate the environment and society to virtual worlds. Surveillance capitalists exploit digital networks and extract behavioural surplus data from citizens' activities in public and private spaces and online expressions by aggregating and analysing data over extended periods to predict, influence, and modify human behaviours in pursuit of immense power and wealth. This unregulated gluttony, which occurs in concealed servers and the opaque operations of Big Tech and the state, leads to the acceleration of time and the collapse of physical space into virtual realities, which enables the exponential power of centralised control. Society's complicity with these phenomena harms authentic socio-cultural relations and the natural environment. The so-called Smart Cities, the emergence of globally networked urban environments, will further subject citizens to artificial intelligence that either acts autonomously or is controlled by centralised power and control systems. These developments, if not carefully regulated, could lead to catastrophic levels of social alienation and environmental degradation, ultimately posing an existential threat to the natural world—both human and non-human.

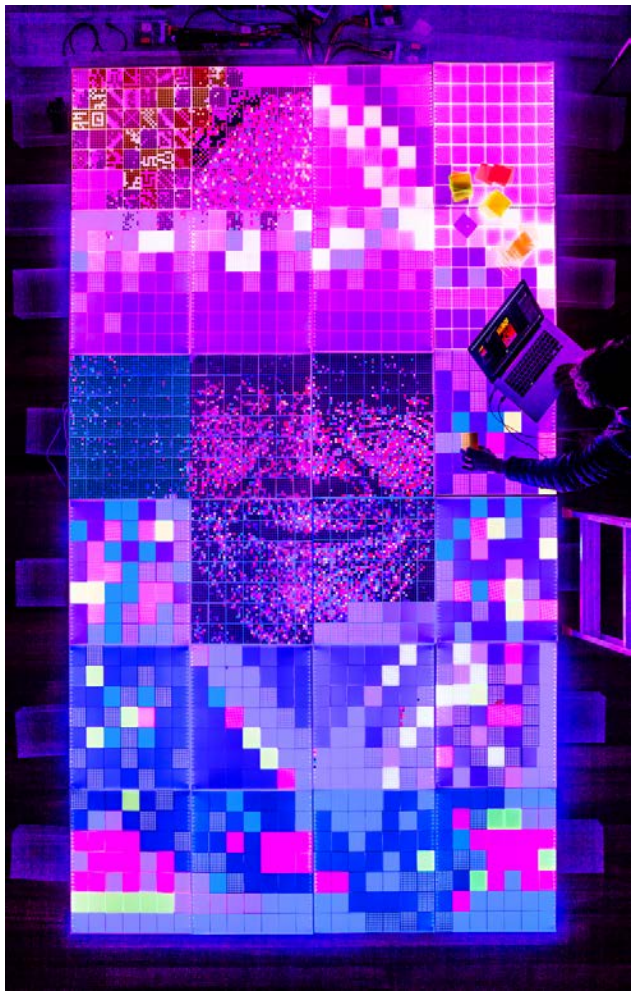

Figure 1. *TWIFSY (The world is fine, save yourself),* work-in-progress on the studio floor in 2020. This image shows the emergence of a post-digital image object made from laser-cut acrylic *pseudo-pixels* placed onto twenty-four translucent acrylic panels illuminated with light-emitting diodes. The image layer was designed using the pixel values of a JPG, a digital image made from a vintage analogue celluloid negative made by the artist in 1997 using a 1977 Nikon FM SLR camera and Kodak 35mm Tri-X monochromatic film.

Figure 2. The emergence of a prototype for a Brattonian ‘accidental megastructure’ made from timber, stainless steel, and various compositions of acrylic offcuts evolved over three years into a *pseudo-media façade*.

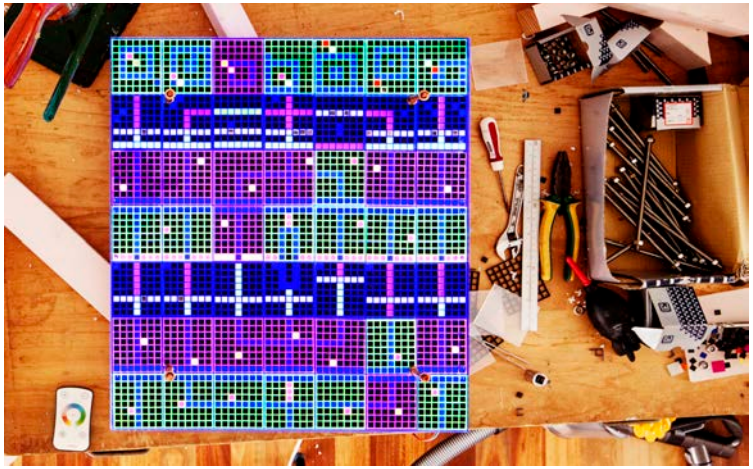

Figure 3. The construction of the image base layer of Panel #22, which measures 590mm x 520mm x 8mm, is made with acrylic, resin, repurposed computer components, stainless steel, and RGB LEDs.

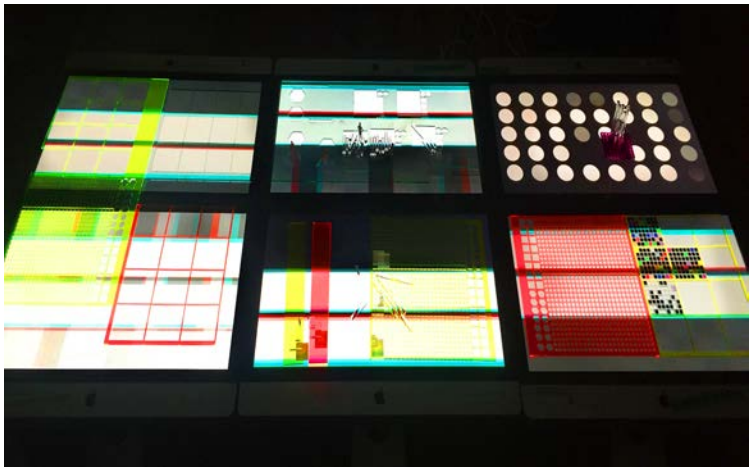

Figure 4. Six e-wasted Apple iMac computers were recycled and arranged in a horizontal grid pattern on the studio floor. The malfunctioning screens produced scanline effects and illuminated the acrylic offcuts set on the screen surface. This arrangement informed the post-digital glitch aesthetic that influenced the development of the work’s world-building resolve over four years from 2019-2023.

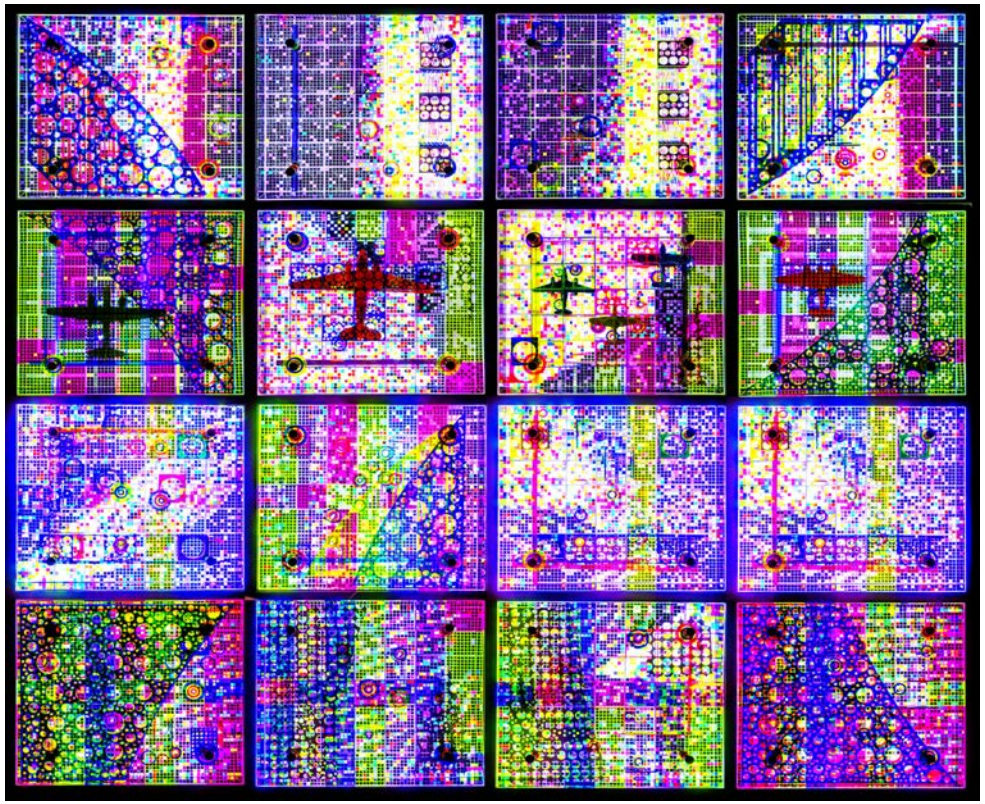

Figure 5. This image of sixteen of *TWIFSY's* final twenty-four panels illuminated with white light was captured from a three-meter birds-eye view. The panels cover an area of 240cm x 208cm. From this perspective and distance, the work forms a pixelated *pseudo-satellite image* of a fictitious military-industrial complex of planetary-scale computation and networked human and non-human objects.

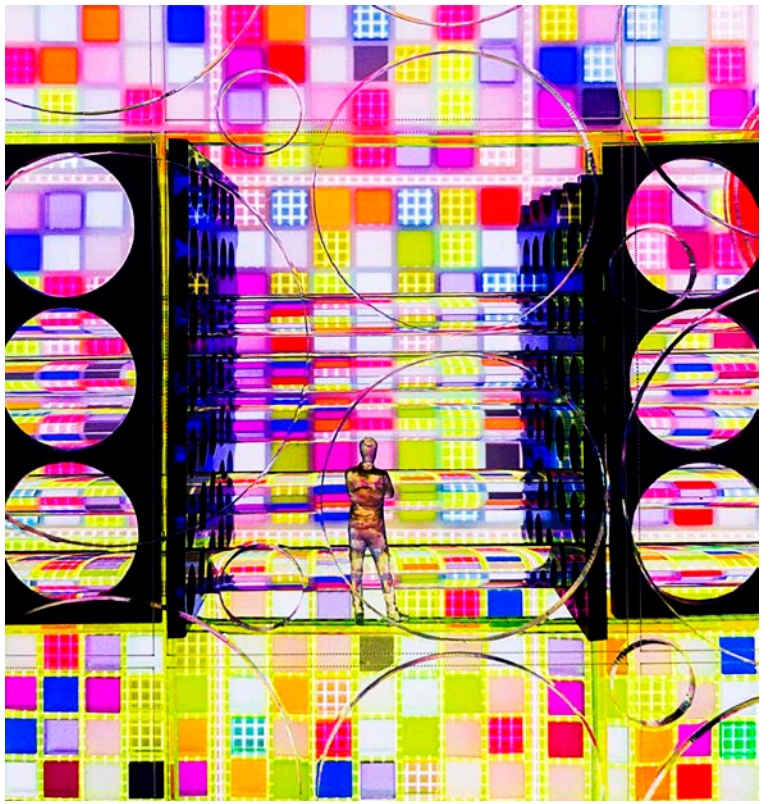

Figure 6. The detail of an 18cm x 15cm high section from Panel #07. The 18mm high post-human figure, made from MED-AMB medical resin, gestures toward a fictitious machine world of interconnected 'Siren Severs' that mediate existence in the Smart City as they lure citizens into their data traps.

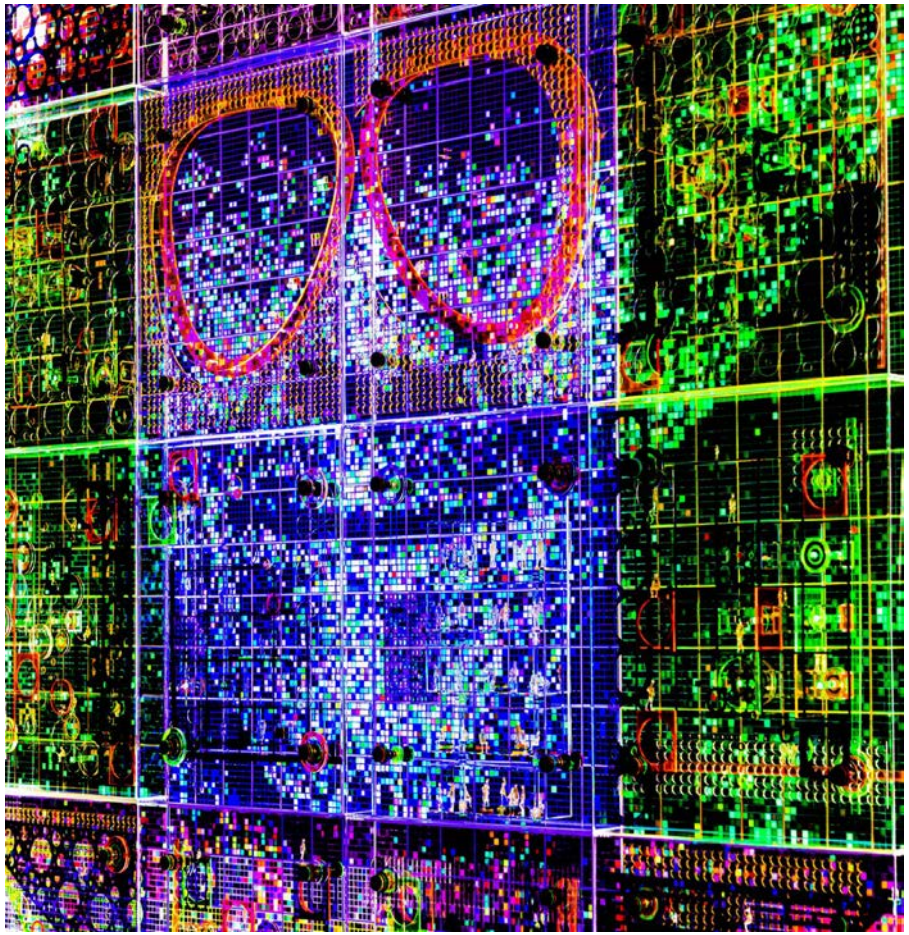

Figure 7. Eight panels viewed from two metres. The image content is perceptible at this distance but better resolved at greater distances or when viewed through a device camera, which effectively scales the image down so that the image is easily decoded. This phenomenon, along with the constant changes in the image objects' colour and illumination, compels the viewer to move, creating an unstable perception and experience of its ambiguous temporal and spatial qualities.

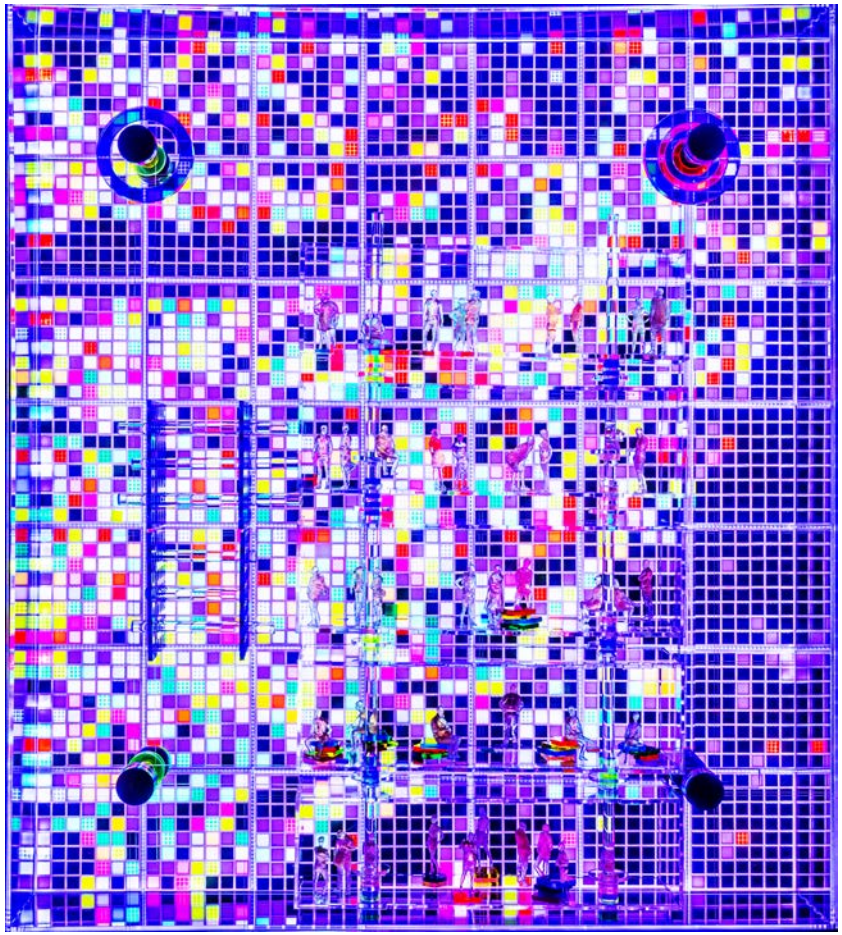

Figure 8. The detail in Panel #15, which measures 590mm x 520mm x 25mm, is viewed at a proximity of eighty centimetres. The simulated architectural space gradually reveals hundreds of tiny model citizens, approximately 33mm high and barely visible at this distance. The figures appear to animate due to the shifting colour and brightness of the LED panels and their variable translucency.

Figure 9. These images, made with a macro lens, illustrate details inside the panels. The translucent figures vary from 12mm to 43mm in height and appear in numerous scenarios, situations, and ‘social groups’. Each has a different posture, clothing, accessories, and gestures, which imply different things depending on the viewer's perspective of the work. Their low-polygonal forms, an artefact of their digital design, reflect and refract the objects surrounding them and the constantly changing coloured light that illuminates the panels. The variability of these temporal and spatial phenomena alters this future world's implied semiological and interpretative possibilities and sociological implications.

Figure 11. This image is a speculative mock-up for a museum proposal. The twenty-four panels are re-configured as a translucent prism, or 'black box' that measures approximately 2.5m h x 1.4m w x 1.4m. It was designed to invoke city-based metaphors of urban landscapes and high-rise buildings and enable the viewer to circumnavigate the image object so that the work could not be experienced in the same way more than once.

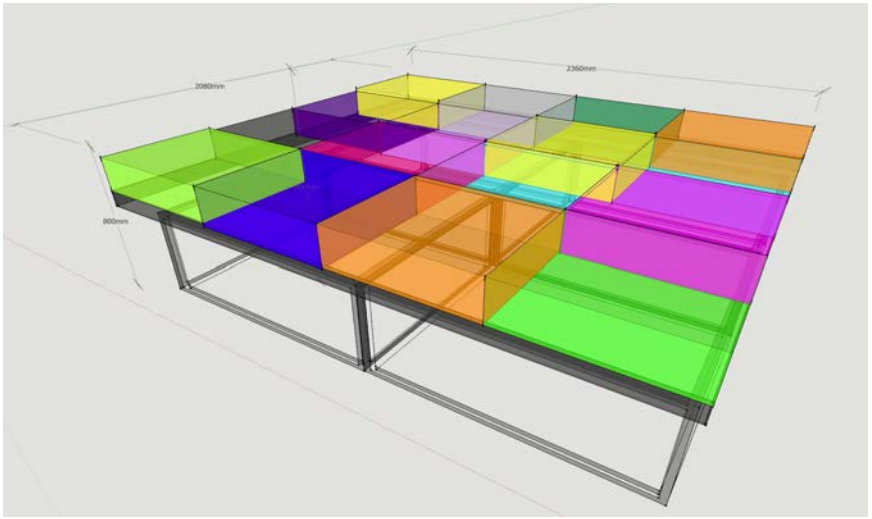

Figure 12. This image is a speculative mock-up for a museum exhibition proposal. The design of this sixteen-panel configuration mirrors the presentation style typical of architectural concept models used by city planners to allow the viewer overhead perspectives from multiple points of view.

Figure 10. This image (above left) shows the image object arranged as a twenty-four-panel *pseudo-media façade*. The video documentation of this configuration demonstrates the installation's variable illumination, brightness, and colour, which are programmed to suit the specific ambient conditions of the installation site. The video also illustrates how the viewer can decode the image object using a camera device. See 3:50–5:10 in the video file: http://www.peterthiedeke.com/twifsy-workinprogress.

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Peter Thiedeke is an interdisciplinary image-maker concerned with post-digital critique. Peter works at the intersection of art and design and contributes to international art and design collectives, creative agencies, publishers, technologists, designers, architects, universities, museums, activists, and cultural festivals. He has exhibited in London, Paris, New York, Sydney, Melbourne, Brisbane, Tokyo, and Buenos Aires. He has received international awards from the D&AD (Design and Art Direction, Worldwide), the AOP (Association of Photographers, UK) and the Nikon Press Awards (UK). Peter lectures at the Queensland College of Art and Design. Peter’s research is situated within futurist discourses surrounding the Smart City, Artificial Intelligence (AI), and the Internet of Everything (IoE). Peter uses speculative design to investigate plausible visual futures in urban environments through media architecture, digital placemaking projects, and acupunctural urban art interventions to increase consciousness of the city’s systems. Peter is a project leader of Future Projections, a funded initiative for the Creative Arts Research Institute (CARI) at Griffith University. This work involves conceiving, designing, producing, post-producing, and documenting non-traditional creative research projects in collaboration with various academic disciplines and city stakeholders.