

AMBITOPIA AND AFFECTIVE ATMOSPHERES. HOW WORLD- BUILDING AND CINEMA CAN HELP UNPACK IDEOLOGY INSIDE PERVASIVE SYSTEMS

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“Who owns and controls the data infrastructure? What is the relationship between the owners and the average participant? What are the interests that drive the use of power gained from data ownership?”

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"Knife through the vast underwater realms of beauty and adventure. Use your sonar, dive deep, flip above the waves. Explore, solve puzzles, unlock the secrets of crystal glyphs. The fate of the world rests on your wits and fins."

With this enticing description, adapted from the back cover of the 1992 SEGA game *Ecco the Dolphin*, a vivid narrator in the audio fiction piece 'Liquid Dream' welcomes the listener to a district-wide urban neverland for full-time gamers called Dolphin Waves. The playful and carefree tone reflects the ludic atmosphere of life in this place. Dolphin Waves is one of the three speculative near-future worlds of Zhōuwéi Network, a critical worldbuilding research project focusing on the relationship between embodiment, datafication and power. Through imagining three types of datafied societies in 2041 and bringing them to life cinematically, the research explores how different ideological underpinnings produce affordances for distinct affective undertones.

The study of 'affective atmospheres' appears increasingly relevant – not only because of the recent 'affective turn' in academic discourse,¹ but also because

1 The notion of 'affect' has been attracting a growing interest across many disciplines, including cultural studies and neuroscience, erasing the historical separation between mind and body, subject and environment as well as between human beings, animals and machines. See for example: Marie-Luise Angerer, *Desire After Affect* (London: Rowman & Littlefield International, 2015). Bernd Bösel, Affective Synchronization, Rhythmanalysis and the Polyphonic Qualities of the Present Moment, in: *Timing of Affect*, ed. Marie-Luise Angerer, Bernd Bösel, and Michaela Ott (Zurich 2014), pp. 87–102. Melissa Gregg and Gregory J. Seigworth (eds.),

the ability to apply this knowledge could bring immense political and economic power. Crucially, this power seems less and less bound to qualitative interpretation of human behaviour; recent technological developments promise to render our affective lives transparent through the use of sensors, real time data processing, pattern recognition and rapid feedback loops.² What makes broad public discourse challenging is the ubiquity and complexity of these data-driven systems, further amplified by intentional rhetorics which can be at the same time enchanting, opaque, contradicting, and even misleading. As an attempt to unpack different motivational mindsets giving rise to newly emerging societal paradigms, we propose to harness and subvert the power of affective atmospheres through the practices of worldbuilding and cinema.

In the fall of 2019, an internet meme emerged that fuses the two-dimensional political compass with eccentric accelerationist scenarios and a 'Choose Your Own Adventure' type interactive storytelling. A matrix with 4x4 speculative situations is presented, often with the instruction: "Choose Your Future." The two axes can differ freely per future compass but they typically revolve around themes such as high-tech versus

The affect theory reader (Durham, NC 2010), pp. 5-9.

2 Bösel, Affective Synchronization. Hans Krause Hansen, Numerical operations. Transparency illusions and the datafication of governance. *European Journal of Social Theory* 18(2) (2015), pp. 203–220. Marjolein Lanzing, The transparent self. Ethics and Information Technology. *Ethics and Information Technology* 18(1) (2016), pp.9–16.

primitive, human-machine merger versus human-machine conflict, fate versus choice or order versus chaos. Most future compasses fall in the category of intellectual humour, playing with combinations of extravagant theoretical concepts. However, the meme's invitation to explore possibilities beyond contemporary capitalism can be embraced by fiction authors, artists and theorists to reclaim political agency in a crucial decade that requires, above all, creative adaptation.³

Following science-fiction writer and activist Redfern Jon Barrett, we embrace the idea of 'ambitopia': speculative imagination beyond the dystopia-utopia binary. On the one hand, as advocated by the solarpunk movement, the socio-political challenges of the present necessitate the will to imagine something better. On the other hand, naive utopianism has become suspicious in the 20th century.⁴ The three worlds in focus in Zhōuwéi Network are imagined as part of a broader roadmap of different possibilities, further explored from the perspective of the lifeworlds implicated by them.

Dolphin Waves (New York City, 2041) explores what surveillance capitalism

could evolve into after automation and climate change have ended the era of industry, consumption and paid work. Legal reforms around data ownership obliged big tech platforms to compensate users for harvesting their data. As data harvesting from XR play proved valuable to integrate human imagination, the final frontier, into hybrid AI, the resulting paradigm could be described as 'Ludified Surveillance Capitalism.' Fuelled by the AI arms race, sparcades (fully automated play and wellness campuses) became the new pinnacle of cultural aspiration. New York's 'Dolphin Waves', the original model for this concept, popularised an early generation of fully immersive virtual reality, based on a combination of sensory isolation and a neural interface.⁵

Dragonfly (Netherlands, 2041) depicts a design-driven post-democratic government focused on safeguarding a sustainable, inclusive environment and collective happiness. In response to the radicalisation and outbursts of violence that had been building up for more than a decade, unconventional, post-democratic approaches became irresistible. 'Posthumanist Ecosystem Design,' developed by an international data science NGO called 'Dragonfly' as a development tool for politically fragile states, applies ecological systems thinking and AI to

3 Ruben Jacobs, How Do We Get Home On This New Earth? *Neuhaus* (2019); <https://neuhaus.hetnieuweinstituut.nl/en/how-do-we-get-home-new-earth>, access: March 17, 2021, 9:30pm. Dan Hassler-Forest, *Science Fiction, Fantasy, and Politics. Transmedia World-building Beyond Capitalism* (London 2016). Kim Stanley Robinson, *Dystopias Now. Commune 1* (2018); <https://communemag.com/dystopias-now/>, access: March 17, 2021, 9:30pm.

4 Eleanor Tremeer, Why We Need Utopian Fiction Now More Than Ever. *Gizmodo* (2018); <https://io9.gizmodo.com/why-we-need-utopian-fiction-now-more-than-ever-1830260945>, access: March 17, 2021, 9:30pm.

5 Philosopher of AI Rainer Mühlhoff (2019) describes different strategies to harness human cognitive abilities to perform subtasks inside a hybrid human-machine computing network in the age of contemporary Deep Learning. Rainer Mühlhoff, Human-aided artificial intelligence. Or, how to run large computations in human brains? Toward a media sociology of machine learning. *New Media & Society* 00(0) (2019), pp. 1–17, here pp. 9,10.

	Dolphin waves	Dragonfly	Project Gecko
Infrastructure	Multinational corporate platform infrastructure	International public platform infrastructure	Open hardware
Controlled by	US-based tech platform	Post-democratic state backed by international NGO	Decentralised democratic participant network
Motive	Maximising advantage in AI arms race	Minimising societal risk, stable endurance	Governing the commons, inner change
Legitimation	Relaxation, dissipation, self-actualisation	Social harmony, environmental protection	Fairly providing basic needs and liberties
Security	Platform specific, safe from unlicensed access	Purpose specific, protected against 3rd party interests	Personal, body-cryptographic
Economy	AI-guided play, virtual sub-economies	AI-guided societal participation	Collaborative resource sharing

complex socio-environmental issues as one interconnected whole. The approach managed to rewire memetic bubbles into a stable societal fabric, using a flexible combination of matchmaking, coaching and exercise, carried out by personal AI coaches.

With *Project Gecko* (different locations, 2041) we imagine something that emerges out of the turbulent experimentation phase of the 2020s and ,30s, which saw an explosion of decentralised autonomous micro societies aimed at radically reinventing democracy for the 21st century. Project Gecko accentuates the importance of inner healing for partici-

pation by adopting conscious movement as the foundation for its distributed data sharing. The name ,Project Gecko' refers to it's easily attachable sticky sensors, reflecting the principle that the presence of tech should be visible and optional. In response to the accumulation of heated conflicts in several locations, onboarding of new members has recently been limited to ,invitation only.'

We position the three worlds on the two-dimensional grid of a future compass by elaborating on three main questions: Who owns and controls the data

	general interest	network interest	group interest	individual interest	
centralized	Posthumanist ecosystem design	Global decultivated natural reserves	Empirico-rationalist monastery order	Transhumanist neo-feudalism	global expansion
	High-tech neoreactionary civilisation state	Decolonised indigenous governance	Diplomatically recognised gang territory	Ludified surveillance capitalism	large territory
	Ethno-futurist community territory	Independent utopian arcologies	Militarised pirate squats	Private Bitcoin citadels	small territory
de-centralized	Inter-dimensionalist Faraday domes	Embodied crypto liquid democracy	Autonomous off-grid primitivism	Annihilationist resistance factions	scattered
	hive			ego	

infrastructure⁶? What is the relationship between the owners and the average participant? What are the interests that drive the use of power gained from data ownership?

In both *Dolphin Waves* and *Dragonfly*, the society's data infrastructure is centralised and the power derived from data ownership is in the hands of a small group of people, whereas the essence of

Project Gecko is the decentralisation of the network. In both *Dragonfly* and *Project Gecko*, the driving motivations of the society are aimed at the benefit of the collective and the survival of the broader system as a whole. *Dolphin Waves* on the other hand, appeals entirely to the self-centred individual, in its rhetoric towards the gamers as well as on the higher level of privately accumulated power. From the average participants' perspective, *Dragonfly* is more thoroughly centralised and inescapable than *Dolphin Waves*, whereas the hive-like col-

6 Here understood as a "wider socio-technical infrastructures through which data is created, stored and analysed"; Jonathan Gray, Carolin Gerlitz and Liliana Bounegru. Data infrastructure literacy. *Big Data & Society* 5.2 (2018), pp. 1–13.

lectivism of *Dragonfly* leaves much less room for individual freedom than *Project Gecko*.

Whether present developments in datafication are driven by techno-religious aspirations, the concentration of power, a genuine belief in the objective benefits of technocratic governance, or something we can't quite grasp yet, we explore these possible futures through the following premise: A social system's higher-level goals and ideological underpinnings trickle down to the way it is designed, how behaviour is conditioned, and eventually, how it feels to live in those worlds. The subjective experience of taking part in a particular world is here approached through the notion of 'affective atmospheres'.

An affective experience can be understood as an embodied state which is more diffuse than emotions and feelings. It precedes conscious thoughts, and in this way forms a basis from which other states and actions emerge. Similarly, an *atmos-sphere* surrounds, or envelopes, yet can be hardly localised.⁷ Atmospheres have been described as 'half-entities' because they are prompted (or given rise) by actual properties of the world, while also being determined by an experiencing subject.⁸ This way, affective atmospheres provide an inter-

esting link between the material layers of a given system and the circumstances and pre-dispositions of different subjects to experience them in certain ways.

In research carried out in 2020, we focused particularly on the way in which societal paradigms, manifested through technology, affect the *relationships people have with their bodies and with each other through their bodies*. A series of audio- and video fictions produced for each speculative society depict how different characters are led through mind-body exercises manifesting the world's characteristic rhetoric through a normalised human-computer interface.

In addition, each fiction piece expresses a particular affective atmosphere arising from its respective world paradigm. While atmospheres can't be captured nor exhausted with explanation, they can be shifted, interrupted and designed for. As pointed out by Böhme (1993), a wide range of professionals work explicitly with atmospheres.⁹ For example, scenographers and retail shop architects produce realities which are physically entered, dealing with transitions through three-dimensional space with scale, tactility, scent, light and movement. UX designers can craft the target atmosphere of a digital environment through interaction flows, visual representation and aural feedback. In religious gatherings as well as secular events such as electronic music festivals, a ceremonial combination of sound, speech, visual in-

7 Ben Anderson, Affective atmospheres. *Emotion, Space and Society* 2(2) (2009), pp. 77–81.

8 Christoph Michels, Researching affective atmospheres. *Geographica Helvetica* 70(4) (2015), pp. 255-263. Hermann Schmitz, Rudolf Owen Müllan, and Jan Slaby, Emotions outside the box. The new phenomenology of feeling and corporeality. *Phenomenology and the cognitive sciences* 10(2) (2011), pp. 241–259.

9 Gernot Böhme, Atmosphere as the fundamental concept of a new aesthetics. *Thesis Eleven* 36(1) (1993), pp. 113–126.

	Dolphin waves	Dragonfly	Project Gecko
Inspiration	Meditation, astral projection, ecstatic trance dance	Yoga, proxemics, tantra, biodanza, tai chi	Conscious dance, 'Movemeant', light language
Contextualisation	Fully Immersive VR through flotation	AR-enhanced personal coaching	Built into wearable body-tracking interface as basis for participation
Carried out by	AI muse	AI coach	Human 'seer'
Purpose	Reading muscle signals for operating a non-human avatar, stimulating and harvesting 'cunning' intelligence	Teaching subjects a desired way to relate to self and others as part of a social engineering agenda	Passcodes and other digital interactions through motion capture and detachable sensors

put and the use of space guides the audience through a collective journey that can be experienced as transcendental or sublime. Cinema, as an immersive time-based medium, has its own particular affordances for constructing affective atmospheres. Scenes can be 'entered', places can be given a particular aura and intensities can be orchestrated through audiovisual storytelling. The German film theorist Siegfried Kracauer suggests that "the material elements that present themselves in films directly stimulate the material layers of the human being: his nerves, his senses, his entire physiological substance" (quoted in Hansen 1993).

Within the cinematic storytelling of

Zhōuwéi Network, the understanding of '*interface*' extends beyond the technological realm in two directions. As the area of mediated contact, the interface represents the affective transition between subjective experience and prefabricated affordances of a designed world. In the absence of an unambiguous visual representation of the presence of technology in immersive storytelling, accessible through the medium of cinema, the works intentionally erase the boundaries between different spaces of reality and meaning, hereby referred to as the *world space*, the *subjective space* and the *symbolic space*.

World space is the spatiotemporal reality where the characters bodily exist

and interact with their surroundings. It is the basis of a society's 'characteristic' affective atmosphere and encompasses the 'physical world', as well as other manifestations of technological mediation such as the indirect presence of psycho-physiological sensing, gestural interfaces and intimate speech AI. Going beyond the 'material' design of the world, ideological premises of each society manifest holistically throughout different areas of life, including normalised social interaction, aesthetics and verbal communication.

The *subjective space*, on the other hand, represents the layer of experience that is shaped by the *world space* in combination with the protagonists' personality, subjective views, social position, perceptions and actions. In other words, it shows how our sociotechnical environments are "brought to life in an affectively conditioned felt body," which flow into, but also alter and even overthrow a world's target atmosphere.¹⁰

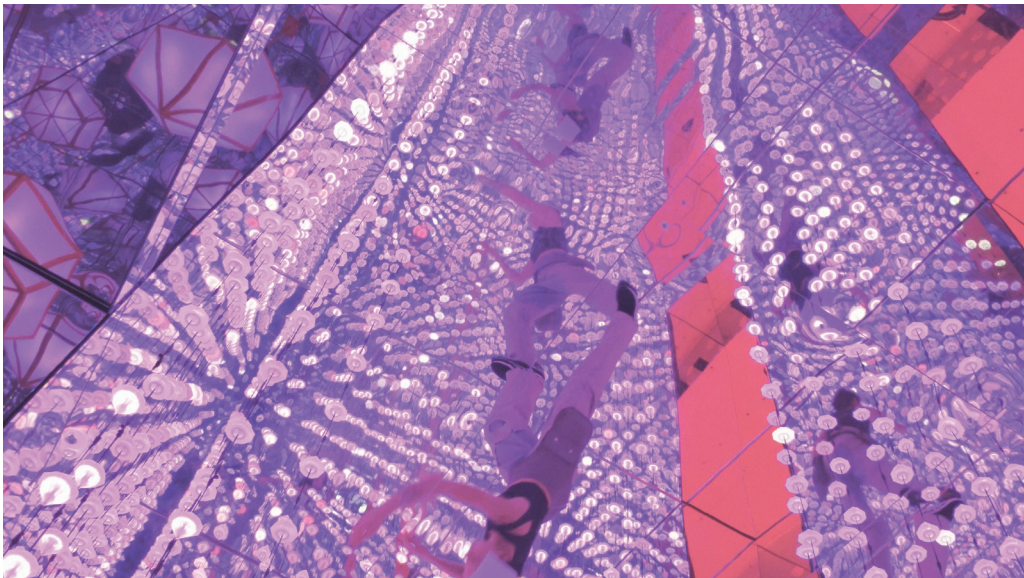
In turn, these inner states can be situated in the *symbolic space*: a purely metaphorical representation that is not part of the storyworld in the literal sense. It differs from the narrative depiction of character development in that the *symbolic space* is not exclusively part of the individual character but belongs to a collective subconscious realm which does not need to be interpreted correctly by the viewer in order to understand the narrative and overall dynamics of the worldbuilding. Building on iconograph-

ic traditions such as the tarot, it can be used as a vivid narrative tool to reflect the characters' inner journey.

Then what is the role of narrative? In this research iteration, intentional focus is on prototyping the affective atmospheres of the three societies, rather than on the characters' storylines and psychological development. Their subjective perspectives and experiences function as segways into the worlds from the perspective of an 'average' member. Transiently contrasting this through glimpses of the perspectives of other characters who occupy a much less harmonious position in their society plants the seed for the narrative of the forthcoming fiction film.

The affective atmospheres of Zhōuwéi Network and further research artifacts aim to act as a liminal space not only between the fictional characters and their respective speculative environments but also between present-day audiences and different possible futures. They can be entered as a roadmap to explore the ideologies and rhetorics driving these futures as well as their corresponding metaphorical undertones in present-day developments. Hopefully, the work contributes to providing a critical compass that facilitates positioning ourselves onto this map today.

¹⁰ Michels, Researching affective atmospheres.











References

- Angerer, Marie-Luise**, *Desire After Affect* (London: Rowman & Littlefield International, 2015).
- Anderson, Ben**, Affective atmospheres. *Emotion, space and society* 2(2) (2009), pp. 77–81.
- Böhme, Gernot**, Atmosphere as the fundamental concept of a new aesthetics. *Thesis Eleven* 36(1) (1993), pp. 113–126.
- Bösel, Bernd**, Affective Synchronization, Rhythmanalysis and the Polyphonic Qualities of the Present Moment, in: *Timing of Affect*, ed. Marie-Luise Angerer, Bernd Bösel, and Michaela Ott (Zurich: Diaphanes, 2014), pp. 87–102.
- Gregg, Melissa and Gregory J. Seigworth (eds.)**, *The affect theory reader* (Durham, NC: Duke University Press, 2010).
- Gray, Jonathan, Carolin Gerlitz and Liliana Bounegru**, Data infrastructure literacy. *Big Data & Society* 5.2 (2018), pp. 1–13.
- Hansen, Hans Krause**, Numerical operations. Transparency illusions and the datafication of governance. *European Journal of Social Theory* 18(2) (2015), pp. 203–220.
- Hansen, Miriam**, “With Skin and Hair.” Kra-cauer’s Theory of Film, Marseille 1940. *Critical Inquiry* 19(3) (1993), pp. 437–469.
- Hassler-Forest, Dan**, *Science Fiction, Fantasy, and Politics. Transmedia World-building Beyond Capitalism* (London: Rowman & Littlefield International, 2016).
- Jacobs, Ruben**, How Do We Get Home On This New Earth? *Neuhaus* (2019); <https://neuhaus.hetnieuweinstituut.nl/en/how-do-we-get-home-new-earth>, access: March 17, 2021, 9:30pm.
- Lanzing, Marjolein**, The transparent self. *Ethics and Information Technology* 18(1) (2016), pp. 9–16.
- Michels, Christoph**, Researching affective atmospheres. *Geographica Helvetica* 70(4) (2015), pp. 255–263.
- Robinson, Kim Stanley**, Dystopias Now. *Commune* 1 (2018); <https://communemag.com/dystopias-now/>, access: March 17, 2021, 9:30pm.
- Mühlhoff, Rainer**, Human-aided artificial intelligence. Or, how to run large computations in human brains? Toward a media sociology of machine learning. *New Media & Society* 00(0) (2019), pp. 1–17
- Schmitz, Hermann, Rudolf Owen Müllan and Jan Slaby**, Emotions outside the box. The new phenomenology of feeling and corporeality. *Phenomenology and the cognitive sciences* 10(2) (2011), pp. 241–259.
- Tremeer, Eleanor**, Why We Need Utopian Fiction Now More Than Ever. *Gizmodo* (2018); <https://io9.gizmodo.com/why-we-need-utopian-fiction-now-more-than-ever-1830260945>, access: March 17, 2021, 9:30pm.

Index of Images

1. Still from design fiction work 'Fluid motion' (2021) by Liminal Vision, set in Dolphin Waves.
2. Still from design fiction work 'Fluid motion' (2021) by Liminal Vision, set in Dolphin Waves.
3. Still from design fiction work 'Clouds of Smoke' (2021) by Liminal Vision, situated in Dolphin Waves.
4. Still from design fiction work 'Tent of Presence' (2021) by Liminal Vision, set in Dragonfly.
5. Still from design fiction work 'Tent of Presence' (2021) by Liminal Vision, set in Dragonfly.
6. Still from design fiction work 'Tent of Presence' (2021) by Liminal Vision, set in Dragonfly.
7. Still from design fiction work 'The Grid' (2021) by Liminal Vision, set in Project Gecko.
8. Still from design fiction work 'The Grid' (2021) by Liminal Vision, set in Project Gecko.
9. Still from design fiction work 'The Grid' (2021) by Liminal Vision, set in Project Gecko.
10. Still from design fiction work 'Ray of Light' (2021) by Liminal Vision, situated in a symbolic space between the worlds.