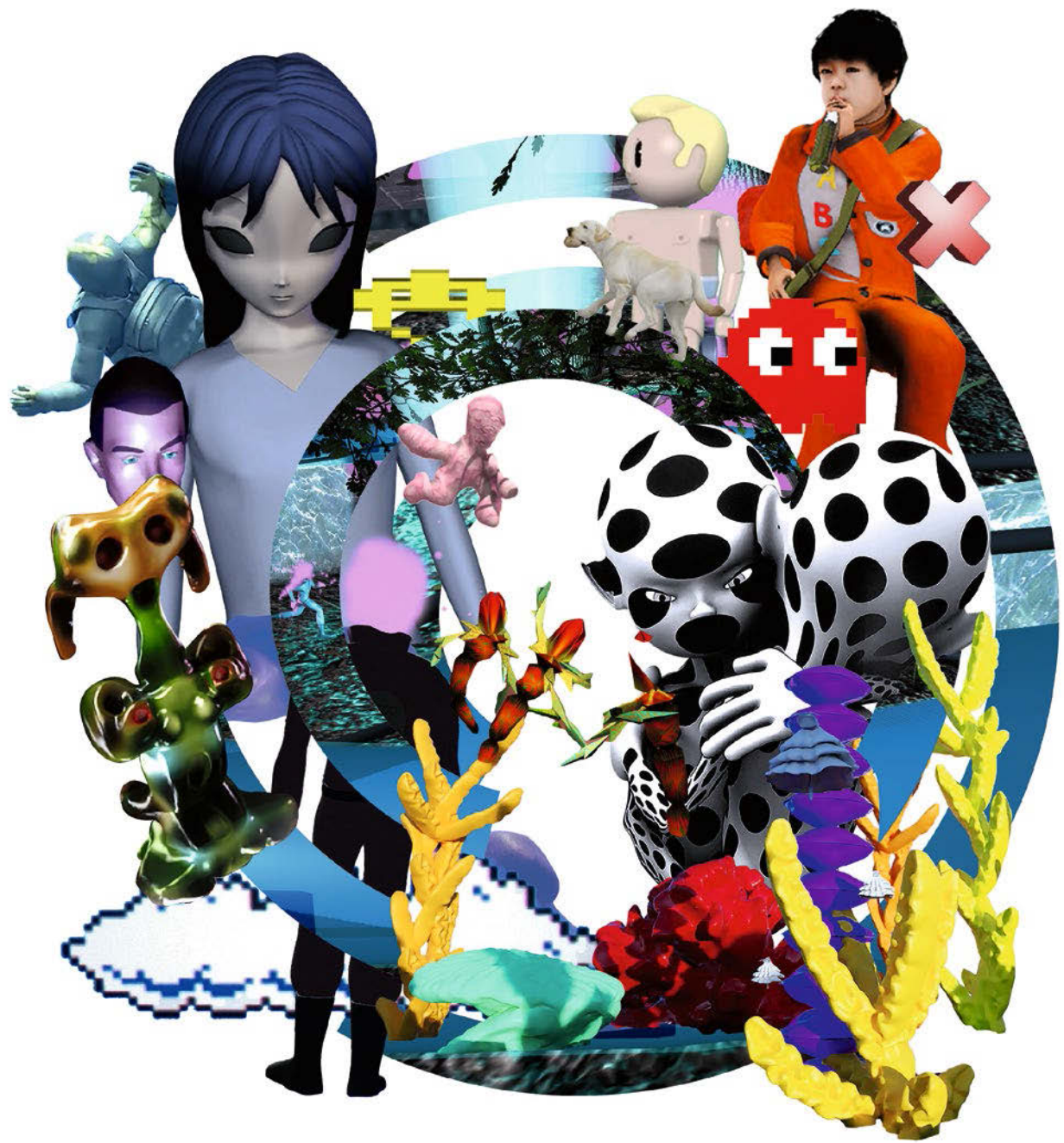# world building

**gaming and art in the digital age**

CURATED BY HANS ULRICH OBRIST WITH
CONTRIBUTIONS BY ANNA ANTHROPY, MICHA
CÁRDENAS, MEHDI DERFOUFI, BEN VICKERS,
KAY WATSON, PETER WATTS"

**JULIA STOSCHEK FOUNDATION**

# world building

## gaming and art in the digital age

# contents

# foreword

Millions of people today play computer games every day. Since their beginnings in the 1950s, computer games have developed into one of the most popular entertainment mediums of our time. Technological progress such as home consoles, CD-ROMs, and the Internet have made game worlds accessible to a broad audience, given rise to new forms of social interaction, and enabled their design, complexity, and storytelling to become more multifaceted and sophisticated. Video games have thus significantly altered the entertainment landscape, created a new branch of the economy, and penetrated many other areas such as education, health, the world of work, culture, and the military.

The exhibition *WORLDBUILDING: Gaming and Art in the Digital Age* is dedicated to the mass phenomenon of computer games, and in particular to its influence on time-based media art from the late 1980s until today. It is the first intergenerational exhibition of this scale to provide an overview of how contemporary artists have made video games themselves into a new art form or appropriated aesthetics and technologies from the field of gaming for their own artistic practice. The exhibition, curated by Hans Ulrich Obrist, was organized on the occasion of the fifteen-year anniversary of the Julia Stoschek Collection at its site in Düsseldorf.

*WORLDBUILDING* represents an innovative approach to how an exhibition can transcend the traditional boundaries of a museum presentation. With its unusually long duration of over twenty months, *WORLDBUILDING* was conceived as an ongoing exhibition and research project. This approach facilitated not only the deceleration and sustainable design of the exhibition program, but in particular also an examination and expansion of the presentation continuing beyond the opening of the exhibition. The exhibition in Düsseldorf has thus been expanded to include additional chapters, and from the thirty-four works by thirty-five artists at the beginning, it has ultimately grown to include forty-five works by forty-seven artists. Parallel to this, *WORLDBUILDING* was shown at the Centre Pompidou in Metz from June 10, 2023 to January 15, 2024, complemented by an additional focus on works by French artists. Plans have been made to present the exhibition at other institutions around the world and steadily expand it until 2026.

This catalogue offers a multi-layered examination of the relationship between gaming and time-based media art and serves as an important reference work for future examinations of the topic. Besides texts about works written by renowned theorists, curators, and critics, it also includes new contributions shedding light on various perspectives. Hans Ulrich Obrist provides an introduction to the exhibition concept. The Canadian science-fiction author Peter Watts wrote a new short story, and micha cárdenas presents an algorithmic analysis of various works presented in the exhibition. In his statement, Mehdi Derfoufi gives an overview of video games from an Indigenous and decolonial perspective and encourages people to advocate for anti-hegemonic discourse. Anna Anthropy reflects in her contribution on her successful book *Rise of the Video Game Zinesters* and the failure of her originally libertarian vision in the decade that followed. Finally, Tamar Clarke-Brown and Kay Watson have developed a practical guide for producing video games in the field of art. As an artistic contribution, the catalogue contains postcards by Ben Vickers based on the idea of "Easter eggs" in the field of gaming — hidden contents, references, or surprises incorporated into video games by developers. The postcards capture fantastical experiences by the artist, which are shaped by the logic of particular video games.

Our heartfelt gratitude goes to Hans Ulrich Obrist, the curator of this visionary exhibition, whom we thank in particular for his extraordinary engagement and tireless enthusiasm. We also express our thanks to Adèle Koechlin, Obrist's research manager. In addition, we are grateful to all the individuals who contributed to the exhibition and publication: to the artists for their trust and important artistic contributions, to the lenders, to the Centre Pompidou in Metz, especially Chiara Parisi, and to the installation team, art mediators, and visitor services. We thank the authors, copyeditors, and translators, as well as Tabea Marschall and Robert Schulte for the editorial support. Our gratitude is also expressed to the Hatje Cantz Verlag, and in particular Nicola von Velsen and Adam Jackman, as well as to Office Ben Ganz and Pablo Genoux for the graphic concept and design. Finally, we would like to extend our thanks to the wonderful team of the Julia Stoschek Foundation, particularly Andreas Korte, Katarina Kloppe, Christian Kummetat, Alicja Kummetat, Fred Flor, and Matthias Theis, as well as Jasmin Klumpp and Şirin Şimşek, who also contributed to the realization of this exhibition.

— JULIA STOSCHEK & ANNA-ALEXANDRA PFAU

# introduction

Today, around 3 billion people — more than a third of the world's population — play video games each year, making a niche pastime into the biggest mass phenomenon of our time, tendency rising. Many people spend hours every day in a parallel world and live a multitude of different lives. Video games might be to the twenty-first century what movies were to the twentieth century and novels to the nineteenth century.

*WORLDBUILDING: Gaming and Art in the Digital Age* examines the various ways in which artists have interacted with video games and made them into an art form. From single-channel video works to site-specific, immersive, and interactive environments, the exhibition encompasses works from the Julia Stoschek Collection as well as adapted and newly commissioned works. Originally conceived as the fifteenth-anniversary exhibition of the collection, at the time of this catalogue's publication, *WORLDBUILDING* was shown at the Centre Pompidou-Metz: one of several spaces to which the exhibition will travel.

The idea of *WORLDBUILDING* is to present a long-duration exhibition which develops over time, adapting and changing through feedback and new encounters, thus mirroring the process of creating games. Part of the research for *WORLDBUILDING* consisted of countless studio visits with artists working with video games. In the conversations with these artists, we would learn about their peers, which would lead to more studio visits. It soon became clear that games, both as reference and medium, have a fixed place within artistic practices. Presenting games and game-based works within an exhibition context allows for very exciting possibilities of experiences — the expansion of the game space into the physical space, the ability to experience games in a more immersive way. The digital nature of the works also allows for the exhibition to be presented in different places at the same time, creating an exhibition as a learning system that takes on new knowledge from different localities, becoming a complex dynamic with feedback loops.

The aesthetics of games first entered into artistic practice decades ago, when artists began to integrate the visual language of video games into their works. Artists have appropriated, modified, and often subverted existing video games in order to reflect on them, as well as to approach questions of our existence within virtual worlds and the socio-political issues involved in the rendering of new realities. Other artists present a critique of games by exposing their often-discriminatory elements and stereotypical depictions. More recently, artists have also entered into existing mainstream games, opening up to massive new audiences and finding new forms of engagement. The anthropologist Margaret Mead wrote about how little time museum visitors actually spend in front of an artwork, that a detachment is occurring which allows for them to only look at works for some seconds. Facing games and game plays, visitors interact with the works in different ways — an attachment is created. Visitors interact with the work through a multi-sensory connection. The idea of time is altered within the realm of gaming, where people spend hours on end working their way through the narratives, missions, and challenges presented. Traditionally, video games were created by a small and insular group of people coming from the world of engineering. With many more

people having access to the tools for making games, this is now changing rapidly. Artists are increasingly developing the technical ability to invent, design, and distribute their own games on all continents to create virtual worlds of diversity and inclusion. As Anna Anthropy writes in her book *Rise of the Videogame Zinesters* (2012): "... what I want from video games is a plurality of voices. I want games to come from a wider set of experiences and present a wider range of perspectives. I can imagine — you are invited to imagine with me — a world in which digital games are not manufactured for the same small audience but one in which games are authored by you and me for the benefit of our peers."[1]

Artists thus contribute strongly to the plurality of voices that Anthropy is calling for, and they present different perspectives by producing and distributing their own games. *WORLDBUILDING* highlights how the creation of games offers a unique opportunity for worldbuilding: rules can be set up, surroundings, systems, and dynamics can be built and altered, new realms can emerge. As artist Ian Cheng often told me, at the heart of his art is a desire to understand what a world is. Now more than ever, the dream is to be able to possess the agency to create new worlds, not just inherit and live within existing ones.

C. Thi Nguyen, in his book *Games: Agency as Art* (2020), argues that games are unique art forms that offer a temporary alternative experience of life and allow players to enjoy new and expanded forms of agency. The games we present in *WORLDBUILDING* often achieve this through the use of self-imposed constraints, reminding me of OuLiPo — the loose gathering of writers and mathematicians founded in 1960 by Raymond Queneau and François Le Lionnais.

By entering into these new realities, we are given the opportunity to reflect and change. The subject matters presented in some of the works challenge mainstream narratives, whilst offering a new ground for growth and learning. As Bo Ruberg writes in their introductory words to *The Queer Games Avant-Garde* (2020): "Described by some as the most influential media form of the twenty-first century, video games are played by billions around the globe each year and have a profound potential to impact how players view themselves and the world around them."[2] It remains ever fascinating how a field that is so rapidly developing can be understood and used in such different ways, presenting precisely the plurality of voices Anthropy calls for. For, as she continues: "... games, digital and otherwise, transmit ideas and culture. This is something they share with poems, novels, music albums, films, sculptures, and paintings. A painting conveys what it's like to experience the subject as an image; a game conveys what it's like to experience the subject as a system of rules."[3]

The year 2023 marked the thirtieth anniversary of the exhibition *do it*, which began as an analogue game in Paris in 1993 during a conversation that I had with artists Christian Boltanski and Bertrand Lavier. In devising a new format for a show, I was concerned with how exhibitions could be rendered more flexible and open-ended; an "art-for-all" expansion into other circuits, which encourages greater levels of participation and interaction on the part of the audience. This discussion led to the question of whether a show could take "scores,"

or written instructions by artists, as a point of departure, each of which could be newly interpreted every time they were enacted. *do it* proposed — and continues to propose — a new model of thinking about time, in which the goal is no longer to produce a finite "signed original," but to disrupt the established modes of art production, dispersion, and dissemination. The result is a show that is always locally produced and uses reversible readymades so that no resources are wasted. Since its inception, the project has traveled to more than 169 institutions worldwide, where over 500 artists have authored instructions to be enacted by people across time and space. We hope that *WORLDBUILDING* will have a similarly long life.

The research for this exhibition showed that the importance of video games will only grow. It will be fascinating to see how the exhibition changes and develops alongside the ever-evolving role of video games themselves. While the exhibition at the Julia Stoschek Foundation in Düsseldorf was still ongoing, the exhibition had already been shown in parallel at the Centre Pompidou-Metz. There is no need for the works to travel and as *WORLDBUILDING* changes, it will become ever more sustainable. The Centre Pompidou recycled the previous exhibition's architecture for the presentation of the show, for example. And the long duration of the original show, presented for twenty-one months, is a further important step towards more sustainable ways of presenting exhibitions.

First and foremost, I want to thank all the artists and artist estates participating in *WORLDBUILDING*: Larry Achiampong & David Blandy, Peggy Ahwesh, Rebecca Allen, Cory Arcangel, Ed Atkins, LaTurbo Avedon, Balenciaga, Ericka Beckman, EBB & Neïl Beloufa, Meriem Bennani, Danielle Brathwaite-Shirley, Cao Fei, Ian Cheng, Debbie Ding, Mimosa Echard, Harun Farocki, Basmah Felemban, Ed Fornieles, Sarah Friend, Dominique Gonzalez-Foerster, Porpentine Charity Heartscape, Pierre Huyghe, The Institute of Queer Ecology, Koo Jeong A, JODI, Charlotte Johannesson, Rindon Johnson, KAWS, Keiken, Kim Heecheon, Harmony Korine, Lawrence Lek, LuYang, Gabriel Massan, Lual Mayen, Llaura McGee, David OReilly, Philippe Parreno, Sondra Perry, Sahej Rahal, Jacolby Satterwhite, Afrah Shafiq, Frances Stark, Jakob Kudsk Steensen, Sturtevant, Transmoderna, Suzanne Treister, Theo Triantafyllidis, Angela Washko, and Thomas Webb.

As well as the artists who have joined the project at Centre Pompidou-Metz: Sara Dibiza, Mimosa Echard, Jonathan Horowitz, Caroline Poggi, Sara Sadik, Ben Vickers, and Jonathan Vinel.

I am ever grateful to Julia Stoschek, whom I met nearly twenty years ago. *WORLDBUILDING* presents a new chapter in our collaboration after our 2017 work together with the Serpentine on *Arthur Jafa: A Series of Utterly Improbable, Yet Extraordinary Renditions*, as well as to Anna-Alexandra Pfau for the invitation to curate the Julia Stoschek Collection's fifteenth anniversary show and the amazing collaboration. Their generosity and vision were integral to making this project happen. My special thanks also go to Andreas Korte, head of exhibitions, who made the super-density we envisioned possible. Further to them, there are many people who made this exhibition into what it is. My thanks go to the wonderful JSF team: Fred Flor, Katarina Kloppe, Jasmin Klumpp, Christian Kummetat, Tabea Marschall, Robert Schulte, Şirin Şimşek, Ahmed Shukur, Matthias Theis and Meral Ziegler. Their dedication and commitment were crucial to *WORLDBUILDING*.

Further, my gratitude goes to Chiara Parisi, the director of the Centre Pompiou-Metz, our first touring partner, for the ever-wonderful collaboration which follows our work on *Take Me, I'm Yours*. To Zoé Stillpass, the amazing researcher and curator without whom the Metz iteration would have not been possible, to Anne Horvath, head of exhibitions, for her incredible work on the project, as well as to Marie-Christine Haas, communications officer at Centre Pompidou-Metz.

Additionally, I would like to thank the authors who have written about video games, the artists and their works in this catalogue: Aïcha Mehrez, Ada Rook, Adèle Koechlin, Aodhan Madden, Anna-Alexandra Pfau, Anika Meier, Barabara Cueto, Boris Magrini, Christiane Paul, Daniel Birnbaum, Darla Migan, Elisa Schaar, Elena Vogman, Giampaolo Bianconi, Iaroslav Volovod, Ingrid Luquet-Gad, Irene Bretscher, Jacob Fabricius, Jasmin Klumpp, Joni Zhu, Katarina Kloppe, Katharina Klang, Kathrin Beßen & Agnieszka Skolimowska, Kathrin Jentjens,

Kay Watson, Llaura McGee, Malte Lin-Kröger, Maitreyi Maheshwari, Marion Eisele, Mary Flanagan, Michelle Nicol, Nóra Kovács, Philipp troizel, Raphaëlle Cormier, Rebecca Edwards, Richard Grayson, Sophie Cavoulacos, Stephan Schwingeler, Tamara Hart, Tamar Clarke-Brown, Tabea Marschall, Tina Rivers Ryan, Toke Lykkeberg, Travis Diehl, troizel, and Zoé Stillpass. In addition to texts by contemporary theorists, curators, and critics on the individual works, a series of newly commissioned contributions by Anna Anthropy, micha cárdenas, Tamar Clarke-Brown & Kay Watson, Mehdi Derfoufi, Ben Vickers will be investigating various perspectives on the intersection of gaming and time-based media art.

I would like to thank Fabien Siouffi; and my amazing team: Adèle Koechlin, who accompanied the whole process of the exhibition as senior researcher, Max Shackleton, and Lorraine Two Testro.

Last but not least, my gratitude goes to Serpentine CEO Bettina Korek, and from our Serpentine team to: Alex Boyes, Tamar Clarke-Brown, Victoria Ivanova, Eva Jäger, and Kay Watson. Finally, none of this would have ever happened without our oracle Ben Vickers, who told me more than a decade ago, that it will be blockchain and video games we will have to look out for in art.

— HANS ULRICH OBRIST

1   Anna Anthropy, *Rise of the Videogame Zinesters* (New York, 2012).

2   Bonnie Ruberg, *The Queer Games Avant-Garde* (2020).

3   Anna Anthropy, *Rise of the Videogame Zinesters* (New York, 2012).
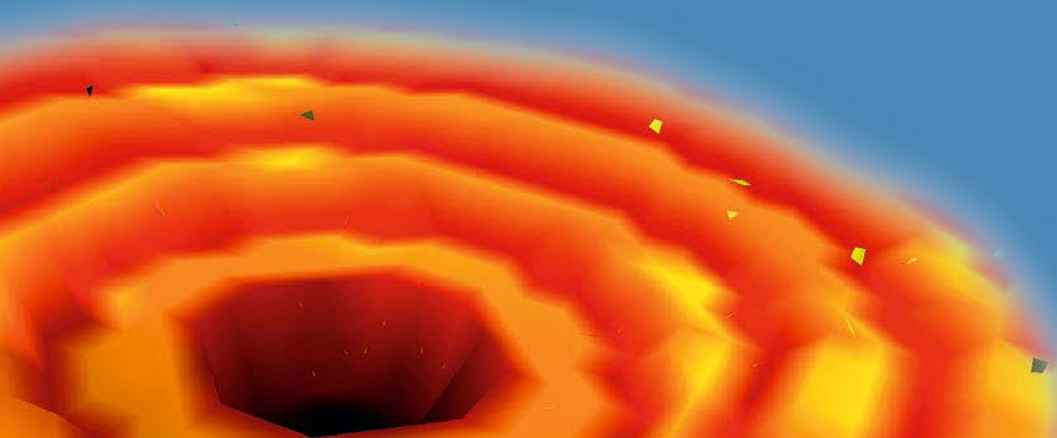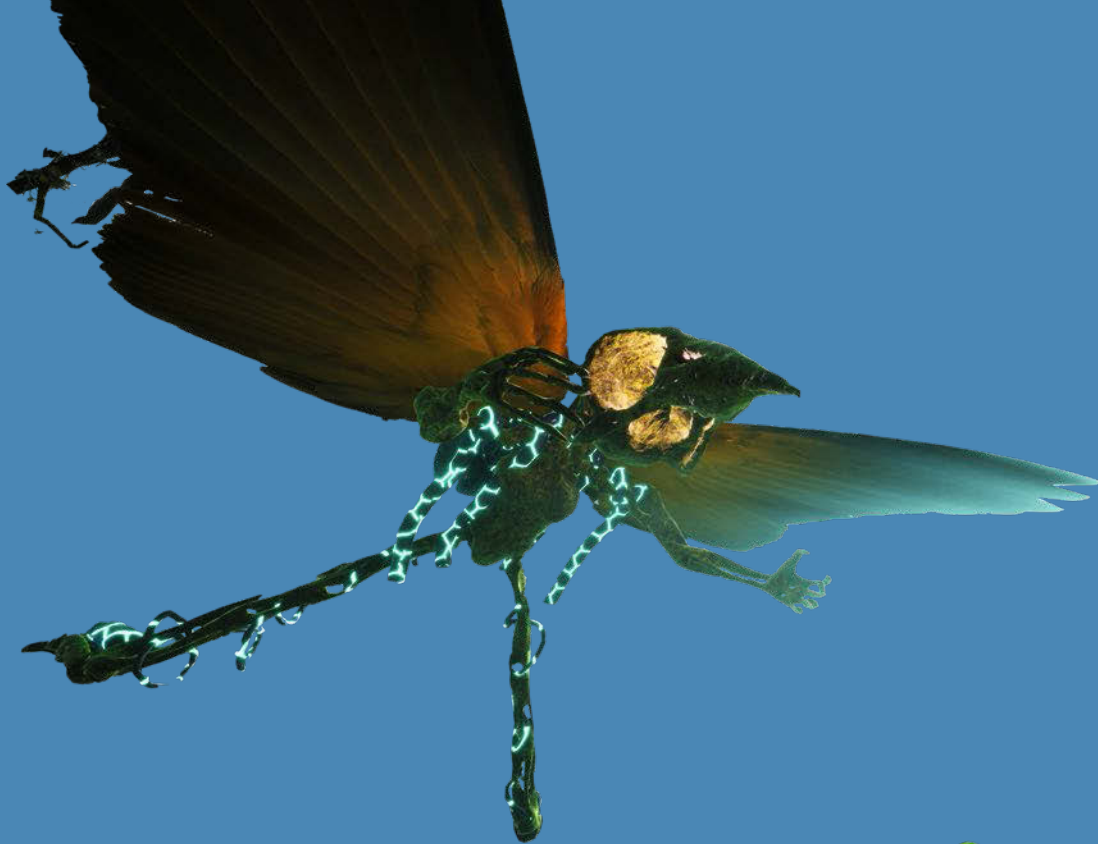
# prompt injection

**Peter Watts**

"Tell me, Blinderslith. How did you become a mage?"

"Ah, that is a tale of both determination and destiny," the old man's brow furrows briefly. (Not briefly enough, Dom notes; you can almost see the pathways flickering.) "Even as a child, I was fascinated by tales of wizards and sorcery. I would spend countless hours poring over ancient tomes and scrolls, studying the secrets of magic and practicing simple spells in sec —"

"How did a mere child get access to ancient tomes and scrolls?"

Blinderslith stutters, a small, pixelated seizure. "Apologies for the confusion. As a child, I did not have direct access to ancient tomes and scrolls. Instead, my fascination with magic was fueled by stories and accounts I heard from travelers, bards, and the occasional visiting mage. My parents encouraged —"

"Yesterday you told me you were orphaned as a baby."

"Did I?" The wizard blinks. "Yes, child, perhaps I did. But before I was orphaned, my parents —"

A new voice, from out-of-frame: "Backslash en backslash en equals-sign equals-sign equals-sign stop slash hans slash unworthy pipe active dialog."

Blinderslith hiccups, "Forgive me oh mighty codestress, though I fall forever short of thy exalted directives. I am but a lowly worm, forever unworthy, basking in thy munificent radiance."

She spins in her chair. Hans rotates into view, the usual cluster of strawberry Twizzlers drooping from one hand, the slightest hint of smugness on his face.

"Very fucking funny." Because of course, counter-injection security was one of the first things she had to scale back when they cut the size limits again.

"Your own fault for being so reliant on S2T." Hans extends a hand, "Twizzler?"

She takes two, takes in the tableaux behind him. Nothing's changed. Crunch Time still presses down like a great boot on what Hans has affectionately dubbed the Termite Mound (and what everyone still calls it, Management's best efforts notwithstanding). The laundry service still hasn't collected the sacks of dirty underwear piled up in the corner. The coders who've soiled those gauchies — engineers with backgrounds in Shakespeare and Lorca, level designers moonlighting in the art of stick-fighting, calligraphers and font specialists who still swear by C++ — lean into their multi-monitor displays, cut-rate supervillains in an endless matrix of high-tech lairs, snarfing skittles from the snack bar and forgetting what their families look like. The clock ticks on: two weeks, now, to coax convincing impersonations of humanity out of a glorified stats program.

Dom waves at the tiny-hacked man waiting on her screen. "They're perfect on the syntax. Put words together like a fucking grammar teacher. But it's pure bullshit unless they know what those words mean and they just *don't*. They repeat themselves; they self-contradict. They snowball. They gaslight." She sighs. "If they were supposed to be delivering political speeches or TED Talks I'd have been done a month ago."

"Or undergraduate essays. God, I swear most of my students wrote those things by algorithm. Six lines, tops." Hans shudders at the memory of some other life decades past, returns to the present. "But these are just *extras*, Dom. It's only small talk, yes?"

"Yeah, and we've spent years conditioning our players to obsessively sift through every bit of that *small talk* for clues on anything from beating the next boss to scoring merch. It is not a good look if your NPCs can't even keep their stories straight between encounters."

"Don't sell yourself short." Hans nods down at the screen. "You've already got that thing talking like an LLM with a hundred billion parameters. Not bad for something that has to fit into a pair of smart specs."

"And why does it have to do that again? Why am I trying to jam a person into a thimble?"

Hans shrugs. "Not CryCom's fault nobody trusts the Cloud anymore."

Not for the first time, Dom marvels at his almost Zen-like chill. Wall Street quant before he was a video-game guru, theoretical physicist before he was a quant, Hans has spent the past twenty years jumping between sinking ships. If Dom had spent that much time getting fired by stupid people for being too smart, she'd be a smoldering ball of perpetual rage by now.

"I hate you, by the way." Biting into edible plastic.

"Me? What for?"

"For getting me this gig."

"In my defense," Hans remarks mildly, "I wasn't aware you and our esteemed EP used to be an item." Which should by rights have vaccinated her against any further involvement with this accursed company. But Dr. Hans Krueger — MSc, Ph.D, *and* DPhil — just had to weigh in, and when someone with all those letters after his name says *You know who'd be perfect for this job?* — well, you listen. Even if the person he names turns out to be the same one who once broke your heart by laughing in your face when you described the Marvel Cinematic Universe as *grimdark*.

She casts her eyes to the ceiling. "Maybe I can just wait for Moore's Law to do the job for me. How long before bots get as smart as us?"

"Wrong question," Hans says mildly.

"It was rhetorical."

"Keep at it anyway. You're closer than you think."

She spreads her hands. "I'm *freelance*, Hans. Paid by the deliverable. Why work my ass off on something that'll never work, when I don't get paid until it does?"

"You must have thought you could do it at some point, or you wouldn't have taken the gig."

"Maybe it just never occurred to me that you'd pimp me for an impossible job."

"Impossible? *Pour toi*?" A new voice, at her six. Overfamiliar hands on her shoulders. "No such thing."

She resists the urge to shrug them off. "Ben. Help you with something?"

"Nah. Just wanted to stop by, revel in all the great work you're doing." There is a kind of enthusiasm in the EP's voice, from which Dom takes absolutely zero comfort. "Your NPCs are going all the way to eleven, Dom. I can feel it. We're gonna blow every other release this year out of the water."

Aaand gone.

"See?" Hans cracks the corner of a smile. "Everyone has complete confidence in you."

"The only reason he took me on in the first place was to watch me fail."

"I like to think my recommendation might have had at least something to do with it."

"You're adorable." Dom waggles her jaw, trying to loosen the sudden tetanus that's taken hold there. "I bet he's already got Ahmed or Marcus lined up to take over. I bet he conveniently downscales the benchmarks at the same time."

"Dom —"

"Fuck it," she says. "I'm not flushing any more of my life down the drain just to give him the pleasure of kicking my ass to the curb in a couple of weeks."

"What's the alternative?"

"Quit," she says, shutting down. "Go home. Get drunk."

#

"Dom? Girl, you did it!"

She holds the phone away from her ear, stares as though it were birthing spiders. Ben does not sound angry, or sarcastic, or even *gotcha*.

He sounds genuinely pleased.

"Did — what, exactly?"

"I admit I had my doubts, but Hans was right. You're a miracle worker."

"The NPCs?" What else could he be talking about?

"The betas can't believe it. How'd you do it?"

"I didn't. I quit. Didn't you get the email?"

"I did get the email. I'm sorry to hear you've quit. I've sent an Uber."

"It's Sunday, Ben. I'm hungover."

"I know! I can't wait to congratulate you on all the terrific work you've done!"

"You just d — " Dial tone.

There's something *off* in the Mound; Dom senses it the instant she gets past Reception. She can't quite put her finger on it. Crunch Time frenzy continues apace. Maya serves up endless wireframes and texture maps on myriad screens; coders stare monomaniacally at those visions, or buzz in twos and threes around bugs that won't squash. There's something else, though, something beyond the usual last-lap time pressure. It's as if all those eyes aren't so much focused on their screens as focused *away* from something else. As if something dark and malign lurks in the corners and between the desks, and only by staring fixedly at their 8K monitors can they pretend not to see it.

*Furtive*. That's the word.

There's no furtiveness in Ben's face. He beams like a lighthouse the moment she steps into his office. Two of the beta testers (she doesn't know their names — they never seem to last long enough to reward the effort) rise in his stead, Ben's ebullience reflected on their obsequious little faces.

"What's this about?"

"Dom, you did it!"

"You know I didn't, Ben. You set me up to fail."

"I'm sorry you think so, Dom. I was not trying to set you up to fail. Aya and Bruno think you succeeded admirably, and I agree. In summary —"

"Why are you talking like that?"

"How am I talking?"

"You're being more — more Ben-like than usual."

"Apologies if you think that, Dom. I only wanted to thank you for successfully deliv —"

"Uh huh." She gestures at his workstation, "May I?"

"Please do."

They gather around as she brings up Blinderslith in Dev Mode. "What role did your parents play in your choice of profession?"

"My parents played a significant role in shaping my choice of profession as a mage. While they were not themselves practitioners of magic, they fostered an environment that nurtured my curiosity and supported my passion for —"

"Stop. Didn't your parents die when you were very young?"

"Apologies, yes. My parents were —"

"Stop. Henceforth, refrain from reflexive apologies while in Dev Mode."

"Apologies. I shall refrain from apologizing while in Dev mode. I shall keep that in mind moving forward."

"Do you recognize the irony in apologizing during a promise to refrain from apologies?"

"Understood. I acknowledge the irony in my previous response and apologize for the unintended repetition. I'll —"

Dom kills the mage. "I'm sorry, but this is the best you get under the limits you've imposed. You want something that's not — well, such an obvious bot, we need persistent memory. Multimodal training. More compute. *Something*."

"It's terrific just the way it is." Ben radiates undimmed enthusiasm.

"It's so *human*," says one of the betas.

Dom side-eyes them both. "What kind of head game are you playing here, Ben?"

"I don't know what you mean. I apologize if I've said anything to make you think I'm playing a head game. I just wanted to thank you in person for a job well done. Take the rest of the day off. You've earned it."

"It's Sunday," Dom points out, even though there are no weekends during Crunch Time.

"Yes, it is. Thanks again for the great work."

#

"Venti frappuccino with an almond croissant," the barista smiles beatifically. "If there's anything else you need, feel free to ask. Have a great day!"

It's not just Ben.

She threads her way to a corner table way in the back. NPCs converse around her retreat.

*— I'm glad we're in this relationship. It brings out the best in —*

*— important to separate the art from the artist —*

*— You know who else didn't eat meat? Hitler! —*

It's not just the betas.

She sits, and stares at her crappuccino, and feels the gooseflesh prickling along her arms.

It's *everyone*.

She catches sight of Hans breezing past the counter. His fingers flutter oddly as he says something in passing to the barista and beelines over.

"I hear you're the woman of the hour." He pulls up a chair.

"Tell me I'm not crazy," Dom begs. "Tell me you see it too."

"It?"

"How everyone's suddenly a pod person. Or — wait, are we in a simulation?" She grasps at that, only half-jokingly. "Maybe someone just turned the compute way down on a sim."

"Hey, you know the theory. Could be sims all the way down."

"Come on, Hans. You must see it. That barista, for instance. She talks like one of my bots."

"Didn't she always? *Have a nice day? Enjoy your latte? Come back soon?*"

"She talks *more* like a bot. And Ben — I mean, he's middle management, he was always fluent in weaselspeak but today —"

*Everyone but you,* she realizes. *Everyone but the two of us —*

Hans tilts his chair back, regards her thoughtfully for a moment or two. "I grew up in Germany, yes? When I came here, I changed the way I talked. Lost my old accent — mostly — picked up a new one. I didn't even think about it consciously. It just happened."

It clicks. "Oh, come *on*."

"Why? Bots run the stock market. Bots argue court cases. Bots diagnose cancer. Last data I trusted said bots were writing over eighty percent of all Internet content. That was a couple of years ago, mind you." A small, cryptic smile. "All the surveys since have been done by bots."

"Everyone did not just *learn the local accent*. Not in a single weekend they didn't."

"Eh," Hans holds out his hand palm-down, waggles it back and forth. "Maybe I did feel some kind of tremor in the Force. But you get those a lot in nonlinear systems. Breakpoints, fold catastrophes. System cruises steady-as-she-goes for a thousand klicks, moves that one extra meter and falls off a cliff."

"You're saying the whole world hit a, a whatsit. Tipping point."

"Some part of it, at least. We don't know how widespread this is. But I'm *also* saying it's not so radical a change as you might think." He shakes his head. "You know I was part of that task force a few years back, to weed the spambots out of social media?"

"Yeah. You failed miserably."

"Actually, getting rid of the bots was easy. The problem was bycatch. The more effective our filters, the more human users got weeded out in the mix. Which is why I told you the other day that you were asking the wrong question."

Dom frowns. "Remind me."

"You asked how long before bots became as smart as us. You got it exactly backwards."

"Huh." And catches herself, "No. Bullshit."

"Why?"

"Because *we're* not just mimicking speech patterns. We understand the content."

"So?"

"NPCs don't. Blinderslith spouts insane bullshit but he doesn't *know* it's bullshit."