

TEXT 4


MAIKE THIES

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HOW IMMERSIVE TECHNOLOGIES SHAPE OUR THINKING AND CHANGE US

It seems as if everything that surrounds us human beings is clickable today. The world is clothed in a digital layer that is indivisible from our everyday experiences—whether we are in a bus, on the street or in a supermarket. This new, digital layer lies over our environment like a many-coloured, viscous film, with FaceTime calls and apps popping up, vying for our attention. Bonus points seem to decide where we may go shopping. Brand products on the shelves of our supermarkets take on a life of their own, whispering to us and urging us to buy them. This is total immersion, and at the same time it signifies a battle for even the smallest spark of our actual concentration on what is truly essential.

ENTERING INTO HYPER-REALITY


What might otherwise sound like a digital life in the far future in fact comes tangibly close to us today through developments in the field of immersive technologies. The visible dystopia that the interaction designer and film-maker Keiichi Matsuda shows in his prizewinning film *Hyper-Reality* (2016) investigates the consequences and risks that technologies such as virtual reality, augmented reality, wearables and the Internet of Things could bring to our lives, and he predicts that technology and humans will successfully merge. 

IPHONES, OR THE END OF LIFE AS WE KNEW IT

Why are immersive technologies enjoying such a boom at present? The arrival of the iPhone on the European market in 2007 seems today like the echo of a warning signal. In concrete terms, that was when the digital shift began to impact on us as individuals, both physically and mentally. The iP-

See Chris Stokel-Walker, "The Augmented Human: How Technology Began to Merge with the Body, and Where to go Next," SPACE10, accessed November 14, 2019, <http://space10.com/report/the-augmented-human>.
James Bridle, *New Dark Age: Technology and the End of the Future* (London: Verso, 2018), 4. The complete quotation runs as follows: "Computational thinking is predominant in the world today, driving the worst trends in our societies and interactions, and must be opposed by a real systemic literacy. If philosophy is that fraction of human thought dealing with that which cannot be explained by the sciences, then systemic literacy is the thinking that deals with a world that is not computable, while acknowledging that it is irrevocably shaped and informed by computation."
See Dorsch: *Lexikon der Psychologie*, s. v. "Immersion," by Markus Huff, accessed November 14, 2019, <http://portal.hogrefe.com/dorsch/immersion>.



hone and the apps that followed it have had a hitherto unprecedented influence on our self-perception, our awareness of others and of our environment, and on our will to act and think politically. Through its physical elegance, its barely tangible weight, its immersive, direct character (thanks to its touchscreen), its gesture-based, foolproof handling and its promise of a cool lifestyle, the iPhone was able to revise our fundamental relationship to technology, even winning over those who were otherwise pessimistic concerning technological issues. 


It is questionable whether we will recognise the warnings of our time and begin to ask critical questions of our everyday use of technology. If we do not learn to understand it thoroughly, it may sooner or later become our enemy. Resourceful technology companies have made us readily accepting of technology in our everyday lives, which means that all doors are open to cutting-edge technology burrowing its way much deeper into our bodies.

In what follows below, I aim to point out our need for reflection and action with regard to our inflationary use of technology—a phenomenon that should in particular have a bearing on the training offered at art



FIG. 1
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See Keiichi Matsuda, *Hyper-Reality*, accessed on November 14, 2019, <http://km.cx/projects/hyper-reality>.



schools such as the Zurich University of the Arts (ZHdK). Following James Bridle, I wish to call for the establishment of “real systemic literacy,” which would reach beyond a purely functional understanding of technology.  It also seems to me—taking my cue from that “real systemic literacy”—that we should offer a more contemporary definition of the concept of “immersion.”

THE BOOM IN “IMMERSION”

The concept of “immersion” signifies when a human being is submerged completely in a virtually generated environment “that offers an intense, comprehensive, vivid illusion of reality,”  and it seems ideally suited to the prevailing zeitgeist. And a virtual environment is experienced all the more intensely the more opportunities for action it offers and the more it addresses the senses. No other concept concentrates so elegantly our yearning for all-round acoustic irradiation and entertainment, diversion and unbounded escapism. The Canadian writer and artist Douglas Coupland has described the immersion experience of virtual reality (VR) as follows: “[...] it just overtakes your body, you’re captured by it. It taps into the reptile part of your brain as well as the frontal cortex and all your gravity systems. [...] You’re really absolutely inside it; you’re completely within it.”  Immersion sounds to us like magic, or a panacea. It is a welcome diversion from real problems such as climate change, environmental pollution, the scarcity of resources, civil wars and the rise of the radical right across the globe (to name just a few examples)—all things that today make our world uncomfortable, even frightening.

For thousands of years, human beings have used immersion techniques

See Wolfgang Ullrich, “Immersion: Geschichte von Misserfolgen,” in *Virtual Reality*, Edition Digital Culture 6, ed. Dominik Landwehr (Basel: Christoph Merian Verlag, 2019), 30–40.



 Douglas Coupland, “VR, is the Hottest Medium,” interview with Daniel Birnbaum, in *More than Real: Art in the Digital Age*, eds. Daniel Birnbaum and Michelle Kuo (London: Koenig Books, 2018), 57.




FIG. 2
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FIG. 3
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without resorting to technology. Just think of the stories passed around the campfire by word of mouth, or via cave paintings. Today, we are fixated on an interpretation of this concept that is almost exclusively technological; what does this tell us about us and our view of the world? Are we going blind in the face of this multicoloured parade of technology?

Regrettably, the true potential of immersive formats often remains untapped today.  There seems to be a general acceptance of how industry, universities and emerging start-up companies ought to approach the topic. But the question remains: have we really grasped the full meaning of the concept of “immersion,” or are we clinging instead to the visual worlds provided by film, TV, art, games and books that want to impose their own definition on us, and are constantly fuelling our expectations regarding how we deal with technology?

TENDENCIES AND TRENDS IN IMMERSIVE TECHNOLOGIES

Together with my colleagues at the ZHdK, I recently engaged with the future of design and the immersive arts in the second issue of the conference format REFRESH,  which is primarily aimed at staff and students of the ZHdK and was initiated by the Department of Design and the Immersive Arts Space of ZHdK. Taking the projects of conference guests as my starting point, I shall here use examples from them to introduce the current trends and tendencies in the field of immersive technologies.

AN IMMERSIVE, ARTIFICIAL MIRACLE OF NATURE


teamLab,  an interdisciplinary team of “ultratechnolo- 455

FIG.1 Hyper-Reality, Keiichi Matsuda, 2016.



gists” (as they describe themselves) is a major player when it comes to immersion in tandem with innovative technologies. All over the world, teamLab museums are springing up. They offer immersive experiences that address all the senses, that interact with the audience, and are able to hide their technological apparatus so cleverly that visitors are transported into a seemingly boundless, parallel world for the duration of their visit. teamLab promises a new encounter with Nature, and time for meditation in cities flooded with people and noxious fumes: in short, a detox and reboot for the senses. In the course of a presentation at one of their museums, a concept of immersion ripens that seems to have escapism as its primary objective and that aims to make Nature obsolete as we otherwise experience it on a walk through the woods or through lush meadows. It is obvious that this is all merely an illusion—yet still the teamLab museums clock up record visitor numbers.

FROM THEATRE TO AN INSTAGRAM SHOW

The buzzword “immersion” is also echoing through the theatres. Traditional venues such as the Royal Shakespeare Company have been doing everything they can to make their productions attractive to young audiences. One result of their deliberations was a package of measures that involved a massive increase in the technological equipment of their theatre. Where once props would have been stored, we today find server farms and high-performance computers. They help to make the theatrical experience more comprehensible for a new audience, bringing it aesthetically into the here-and-now. In one such production, the main performer no longer dresses in classical costume,

See *Age-Old Cities: A Virtual Journey from Palmyra To Mosul*, Institut du Monde Arabe, October 10, 2018–February 10, 2019, accessed November 14, 2019, <http://imarabe.org/en/exhibitions/age-old-cities>.



See *The Tempest*, 2017, Royal Shakespeare Company, accessed November 14, 2019, <http://www.rsc.org.uk/the-tempest>, http://youtube.com/watch?v=S6yhX_JdW0U.



See REEFRESH, Zurich University of the Arts, accessed November 14, 2019, <http://refresh.zhdk.ch>.



See Art, teamLab, accessed November 14, 2019, <http://teamlab.art>.





but is clothed in a motion capture suit that lets him give life to his virtual alter ego on an on-stage screen. The trailer for this production shows excerpts from Shakespeare’s *The Tempest* (2017) that seem not unlike a video game, and that have little to do with theatre as we know it. Admittedly, the result needn’t be bad—but even just the high-gloss trailer suggests that the work has sold out to technology and has paid for it by losing life and independence. Instead of shaking off the dust of 400 years that lies on the work and offering a new reading of it, it has been turned into an “event.” What are the members of the audience supposed to concentrate on, when confronted with such a visually stunning, multimodal inferno on the stage? What will the average audience member take home from this? What we are painfully experiencing here is a transition from theatre to an Instagram show—an utter marketing coup that shines no profound, meaningful light on either the work or its actors.

ARCHAEOLOGICAL EXPLORATION TOURS IN VR

I take off my data glasses and am still full of a world in which every pixel came together to form a magical overall picture, one that was alive and exuded its own aura. I moved through cathedrals, mosques and temples that no longer exist in the form I have just seen. I positively tasted the dust on my tongue that I seemed to stir up while wandering through these impressive structures. The beauty and the degree of detail of these virtual reproductions of the Temple of Bel in Palmyra, the Great Mosque of al-Nuri and the Church of our Lady of the Hour in Mosul took my breath away. I wanted to stay, and perhaps explore their surroundings—but the system

called me back. The closing credits and an all-pervasive blackness forced me to leave this lovely world, albeit reluctantly. I was roughly catapulted out, without having asked to leave. My eyes are still blinking, trying to get used to the light of day. A wasteland surrounds me now. An office space with computers and lots of cables. There is no trace of the magical place where I walked just under half a minute ago.

Top-class computers, data glasses with a high frame rate, and a synthesis of photogrammetric images and ingenious 3D modelling technologies played their part in creating these replicas of cultural sites that have since been destroyed. The VR experience “Age-Old Cities: A Virtual Journey from Palmyra To Mosul”  was commissioned by the Institut du monde arabe and realised by the French start-up ICONEM in partnership with UNESCO and Ubisoft. It enchants, overwhelms and offers a foretaste of what we might be able to do in our leisure time in future: immerse ourselves and shoot off into virtual worlds. It awakens our instinct to explore and makes us want more. 


Regardless of the many benefits of the project I have just described, ultimately we are left with the question as to what experiencing it triggers in us. Does it make us more responsible, does it inspire us to political action, or does it fade away, given the already excessive presence of technology in our everyday lives? We rarely reflect on our readiness to immerse ourselves in virtual reality. And we rarely create any frame of reference around a VR experience that might offer some form of context or sphere of action for it, either in advance or afterwards. In most cases, we enter it to be entertained or to experience something sensational. “Age-Old Cities” functions in an ex-

May 10, 2017, accessed September 10, 2019, <http://blog.berlinerfestspiele.de/der-zuschauer-vergisst-ja-nicht-dass-er-diese-brille-traegt>.


Ed Atkins, quoted in Jochen Werner, “Der Zuschauer vergisst ja nicht, dass er diese Brille trägt,” conversation on “RHIZOMAT VR” with Mona el Gammal, Kay Meseberg and Thomas Oberender, Immersion, Berliner Festspiele Blog,

See Dominik Landwehr, “Virtual Reality rettet zerstörte Kunst,” in *Virtual Reality*, Edition Digital Culture 6, ed. Dominik Landwehr (Basel: Christoph Merian Verlag), 40–52.

hibition context. The user is provided with a multitude of documents that explain the regions shaken by war and terror, and emphasise the original meanings of the cultural heritage we experience. This gives us the opportunity to develop a deeper understanding of what we are shown in VR.

The question remains as to how we in the field of design may in future desire to interpret the concept of “immersion.” “Immersion is not a warm bath,”  as the artist Ed Atkins aptly said in an interview at the Berliner Festspiele. He thereby offered a distinctive, important, guiding principle for the production of immersive experiences that those active in the creative fields of design and art should take to heart if they wish to be relevant, to surprise and to create a lasting experience for users.

INTERDISCIPLINARITY AS A KEY TO A RESPONSIBLE APPROACH TO IMMERSIVE TECHNOLOGIES

“Today, since it is seen as an agent of change, there is a reason to reimagine design as a discipline and the increasingly urgent need to look at design education. There is a need for learning and unlearning to become part of on-going educational practice. The way we learn should be expanded; informal learning spaces should be distributed across various dimensions; conventional methods are no longer enough.” 


The excessive presence of technology is constantly creating uncertainties, and questions that we must ask if we are to responsibly explore the future relationship between human beings, technology and the space around us. Design and the arts have the expertise necessary to give meaning and life to immersive technologies. The new Immersive Arts Space 






FIG.2 Dancing Digital, Immersive Arts Space, ZHdK, 2019 (Photo: Davide Arrizoli).

FIG.3 Dancing Digital, Immersive Arts Space, ZHdK, 2019 (Photo: Davide Arrizoli).




at the ZHdK offers an excellent place for experimenting in interdisciplinary teaching formats and research projects at the interface of art, design and technology. Here, we can explore new possibilities for using such technologies in different spheres of life and fields of excellence. It will be necessary to engage in transdisciplinary activities if we are to understand immersive technologies at more than a merely formal level, and if we are to link them to relevant contents. It is important that content and the desire to communicate should always be considered more important than the technology itself.

It is vital to develop a digital strategy and base our approach on it, especially where our teaching is concerned. We have to find a balance between practice, applied theory and media philosophy. One possible starting point would be a detailed investigation of the concept of “immersion” with its varied applications in philosophy, psychology, media history and the history of technology. Another anchor point in a future-oriented design training could involve implementing the technology on offer after having subjected its best-practice examples to a critical assessment. It is often claimed that programming skills can open the gates to the digital world. This may appear true at first glance, but even acquiring these skills is insufficient to lay bare the global, network-dependent entanglements involved here, nor can those skills alone elucidate the concomitant moral and ethical issues, nor tell us whether the use of this technology will truly lead us to the goal we envisage. 

It is essential to achieve a balance between online and offline teaching formats in order to develop our research abilities and boost our stam-

ina and powers of concentration. These are abilities that are disrupted, even impaired by our exaggerated use of technology. Even in our digital world, resorting to book, pen and paper is anything but antiquated, and no less immersive. A “digital pause” can create a certain detachment for our research questions, it can foster communication and dialogue, and thereby also support our ability to create unconventional approaches to solving problems. A desire to engage in future-oriented design and in a long-term discourse may then be able to take the place of the panicked acquisition of technological expertise.

 See “Immersive Arts Space,” Zurich University of the Arts, accessed November 14, 2019, <http://immersivarts.ch>.
 See Bridle, *New Dark Age*, 3f.

 Ova Deniz, “The Ever-Expanding Concept of a Biennial,” preface to *Design As Learning: A School of Schools Reader*, ed. Vera Sacchetti (Amsterdam: Valiz, 2018), 35.

THE DESIRE TO COMMUNICATE SHOULD ALWAYS BE CON- SIDERED MORE IMPORT- ANT THAN THE TECHNOLOGY ITSELF

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