# BEYOND UX

Florian Hadler

# CULTURE & HISTORY

An interface – in a merely technological perspective – is a site where incoherent modes of communication are rendered coherent[1] and where signals are translated and combined,[2] a simple gateway between databases, code modules and other forms of machine based communication. An interface is also a site where technological and human preconditions meet in structured moments of sense-making and interaction.[3] Furthermore, an interface is a form of relation and at the same time a form of differentiation and distinction,[4] of transition and mediation[5] and of inclusion and exclusion.[6] An interface therefore is not just a surface or a passive gateway or threshold, not only a mode or a site of interaction or communication, but a deeply historical artifact: a structured set of codes, complex processes and protocols, engineered, developed and designed, a space of power where social, political, economic, aesthetic, philosophical and technological registrations are inscribed.[7]

_____

1　　Florian Hadler, Daniel Irrgang, "Instant Sensemaking, Immersion and Invisibility. Notes on the Genealogy of Interface Paradigms." *Punctum 1*, 2015: 8.

2　　Søren Pold, Christian Ulrik Andersen, eds., *Interface Criticism. Aesthetics beyond the Buttons*. (Aarhus Denmark: Aarhus University Press, 2011), 9.

3　　Alan C. Kay: „User Interface. A Personal View," in *multiMEDIA. From Wagner to virtual reality*, (New York, NY: W.W. Norton, 2001 [1990]),123.

4　　See Peter Weibel: "The Art of Interface Technology." In *Sciences of the Interfaces,* ed. Hans

Diebner, Timothy Druckrey and Peter Weibel, (Karlsruhe: ZKM, 2011), 272–281. See also Zielinski in this journal p. 46

5　　Alexander Galloway, *The Interface Effect*. (Malden, MA: Polity Press 2012). See also: Johanna Drucker: "Humanities Approaches to Interface Culture," *Culture Machine 12*, 2011.

6　　Branden Hookway: *Interface*. Cambridge, MA and London: MIT Press, 2014: 4.

7　　For a discussion of a historical predecessor of current interfaces see the chapter on the post-

The interface is a cultural and historical phenomenon.[8]

# WORLD-RELATION AND -PERCEPTION

Our techno-ecological surroundings appear dialectical and paradoxical: Surface refers to depth, perceptibility implies imperceptibility, simplicity is built upon complexity, usage includes being used. With the dissolution of computation into networked on-demand resources, with distributed ledger technologies and decentralized infrastructures for storage, information and data retrieval, with far field voice recognition and context-sensitive service design, large parts of our techno-ecological surroundings are accessible only through the interface of connected apparatuses. The interface therefore has a very specific role in these dialectics: it not only conveys between human and machine (and machine and machine for that matter), but it also oscillates between object and subject, between tool and agent. An interface constitutes the boundaries between human and machine, holding them apart by linking them together, drawing thin and preliminary lines between them. The interface is validated by the user[9] – both become an ensemble,[10] constantly renegotiating the intersections between human, machine and environment. The operational iconicity of the (graphical) interface – eg. its ability to instantly manipulate its object by manipulating its visible representation – is a recursive hermeneutic operation that redefines our relation to the world.[11] Through this convergence of human, machine and environment, the interface is not just a process or device, but rather a way to see, understand and act within our ubiquitous techno-ecological surroundings, providing access to a mediated world. To paraphrase the famous quote from Wittgenstein's Tractatus ("The subject does not belong to the world; rather, it is a limit of the world."[12]), one could argue that the interface belongs neither to the machine nor the user, but designates and negotiates their limits through their connection.[13]

The interface impacts our perception of and relation to the world.

---

office counter in the 1930s from Susanne Jany in this volume on p. 82.

8 Hadler, Irrgang, „Instant Sensemaking, Immersion and Invisibility," 21.

9 See the article from Lasse Scherffig on cybernetic perspectives on the interface in this volume on p. 58.

10 An idea that is obviously employed by actor-network-theory, and also discussed in the text by Max Bense on the automobile, in this volume on p. 112.

11 The operational iconicity and recursive hermeneutics become highly sensitive in the case of ground based drone operations, as discussed by Olia Lialina in her article on Rich User Experience in this volume on p. 176.

12 Ludwig Wittgenstein, *Tractatus Logicus Philosophicus*, (London: Routledge & Kegan Paul, 1961 [1922]), sect. 5.632.

13 Hadler, Irrgang, "Instant Sensemaking, Immersion and Invisibility," 11.

# ENGAGEMENT AND IMMERSION

The form and structure of media is shifting from linear and multi- or non-linear information towards instantaneous and simultaneous interaction[14], enhanced through ever more intuitive, immersive and conversational applications and services. If we expand the definition of the narrative from a sequence of events towards connecting, supplying and rendering information,[15] the definition of text towards service and the definition of viewer or reader towards user, we can identify some well-known mechanisms and structures within these (not so) new media paradigms. Known as flow,[16] engagement[17] or continuity of experience[18] in the various human interface guidelines is the *découpage classique* or *continuity editing* from

film practice and theory.[19] Its aim is to create a sense of consistency between different elements and to immerse the user.[20] These effects of immersion are incredibly important for the monetization of most web-based user-facing services and applications: Metrics such as returning user and retention rate are crucial KPIs[21] for almost every tech-based B2C[22] business model, as they indicate the time a user spends on a service or application, which correlates directly with the user value, eg. money spent either through conversions or money made through advertising. The more immersive a service is, the higher the value per user. Immersion is achieved with coherent design and intuitive control, but also with gamification mechanisms like quantification and instant gratification via social feedback. These dopamine fueled regimes[23] of visibility – or rather accessibility with

---

14    Florian Hadler and Daniel Irrgang: „Nonlinearity, Multilinearity, Simultaneity: Notes on Epistenological Structures," in *Interactive Narratives, New Media & Social Engagement,* ed. Hudson Moura, Ricardo Sternberg, Regina Cunha, Cecilia Queiroz, and Martin Zeilinger (University of Toronto, 2014).

15    Alan N. Shapiro makes a plea to break down the separation of story-telling and technology in this volume on p. 34.

16    See the description of Microsoft Fluent Design: https://fluent.microsoft.com/, accessed on march 7th 2018.

17    See the description of iOS Human Interface Guidelines: https://developer.apple.com/ios/human-interface-guidelines/overview/themes/, accessed on march 7th 2018.

18    See the description of Google Material Design: https://material.io/, accessed on march 7th 2018.

19    Jan Distelmeyer elaborates further on the relations between film theory and interface, eg. on the concept of operative images, drawing from the filmmaker Harun Farocki, in this volume on p. 22, and also the takeover of the term "mise en abîme" by

Søren Pold and Christian Ulrik Andersen in their "Manifesto for a Post-Digital Interface Criticism", in *The New Everyday*, 2014, http://mediacommons.futureofthebook.org/tne/pieces/manifesto-post-digital-interface-criticism, accessed on march 7th 2018.

20    For a broader discussion of immersive media, pre-digital illusionary spaces and the role of the body see also the article from Julie Woletz in this volume on p. 96.

21    KPI: Key Performance Indicator

22    B2C: Business to Consumer, B2B: Business to Business

23    There are a number of initiatives that strive to liberate the user from these rules of engagement through a new approach to technology, for example the light phone: https://www.thelightphone.com/about/ ("Our time and attention are the two most important things that we too often take for granted."), or the center for humane technology: http://humanetech.com/, ("Reversing the digital attention crisis and realigning technology with humanity's best interests."), both accessed on march 7th 2018.

regards to conversational, spatial and ambient interfaces such as speech, voice and gesture – are intertwined with corporate brand strategies, demanding attention and engagement and guiding self-narration and identity construction.[24]

The interface governs its users through immersion and engagement.

# INVISIBILITY AND DISSOLUTION

It is a well-known proverb among interface designers that the real problem of the interface is that it is an interface. The goal of each interface design therefore is to disappear and to become invisible or imperceptible, to be so intuitive that the user is no longer aware of using it.[25] This is why although interfaces seem to be the omnipresent (and still mostly visual) blockbusters of contemporary culture,[26] they at the same time dissolve before our eyes and sink into the background. As Mark Weiser pointed out, the most profound technologies are the ones that disappear and integrate seamlessly into everyday life, so that they are no longer distinguishable from it.[27] The best user experience[28] is rendered when the user is not aware of him/herself as being a user of a specific program, but experiences him/herself as the one per-forming a task without noticing the mediation. This concept of embodiment reaches back to the tacit and subconscious control of the cockpit and the automobile,[29] where the user is driving but not commanding.[30]

The interface is most efficient when it is invisible.

# AGENCY AND DATA GENERATION

This enhanced user experience would not be possible without the constant tracking and measurement of user behavior through all kinds of sources and sensors. The back-grounded technological objects be-

---

24    For the identity effects of snapchat and the role of the interface designer as meta-storyteller see Karl Wolfgang Flender, "#nofilter? Self-narration, Identity Construction and Meta storytelling in Snapchat," in *Interface Critique*, ed. Florian Hadler, Joachim Haupt, (Berlin: Kulturverlag Kadmos, 2016). For the impact of social media on concepts of the Self see Florian Hadler, Gabriel Yoran, "Default Metaphysics – Social Networks and the Self," in *Public Interest and Private Rights in Social Media*, ed. Cornelis Reiman (Oxford, Cambridge, New Delhi: Chandos Publishing, 2012).
25    See also the text by Siegfried Zielinski in this volume on p. 46.
26    That is how Jan Distelmeyer calls it on p. 22.

27    Mark Weiser, Rich Gold, John S. Brown, "The Origins of Ubiquitous Computing Research at PARC in the late 1980s," *IBM Systems Journal 38*, (1999).
28    See also the text by Olia Lialina on the history and origins of the term user experience in this volume on p. 176.
29    See Branden Hookway: *Interface*, p. 147, and the artwork from Branden Hookway and Maria Park that depicts the flight cockpit as an early prototype of human-machine-interaction in this volume on p. 160. See also the text by Max Bense on the automobile and the self in this volume on p. 112.
30    Terry Winograd and Fernando Flores: *Understanding Computers and Cognition: A New Foundation for Design* (Norwood NJ: Ablex Publishing, 1986).

come unreadable and imperceptible[31] and the networked computation no longer requires human interference and relies more and more on post-hermeneutic APIs, AI and smart contracts. Optimizing algorithms are now working with real time data to deliver a context sensitive and user oriented interpretive interface that anticipates and predicts the user's needs and expectations and guides the user with subtle affordances towards desired interactions. Behavioral patterns and conversion funnels, click-through-rates, page impressions and sales objectives, buzz, sentiment analysis, organic search and direct traffic as well as location tracking, heart rates, body weight, sleep cycles and social graphs form the currency of data – generated through the usage of interfaces. This data is used for constant optimization and A/B testing, integrating even deviation and misapplication, so that every abuse or violation might become a feature or a source of innovation.[32] The shift from linear media to instant interaction no longer provides a text that requires a rather passive reader. Instead, the user is presented with data or information that demands and incentivizes interactions, feedbacks and decisions.

The interface requires interaction to generate value.

# OUR PROGRAM

Interface Critique is not interested in the enhancement of usability, in mere ergonomic questions of design and architecture and in the optimization of user orientation or user experience. Interface Critique does not require a generally accepted definition of the interface. On the contrary: The obscurity and fuzziness of the term interface promises theoretical productivity and fruitful frictions among all kinds of disciplines. In order to render these diverse and multifaceted aspects of the interface visible, we need to expand our focus and include aesthetics, economics, engineering, politics, history, philosophy, sociology, coding, architecture, art, design and many more.

Interface Critique strives to expose the implicit agencies, conditions and contingencies of interfaces, applications and apparatuses. Interface Critique encourages comprehensive and transdisciplinary perspectives and promotes an understanding of the interface as a dynamic cultural phenomenon. Interface Critique acknowledges that the discourse on interfaces is neither new nor groundbreaking and therefore intends to resurface old texts and discourses, either through translation, republication or initial publication if they haven't been or are no longer avai-

---

31      Some artistic / activist projects aim to render these techno-ecological surroundings and especially technologies of surveillance visible again, see for example the work of Julian Oliver (https://julianoliver.com/, accessed on march 7th 2018) like *men in grey* (https://criticalengineering.org/projects/men-in-grey/, accessed on march 7th 2018) or *the unplug*

*device* (https://plugunplug.net/, accessed on march 7th 2018).

32      See also Florian Hadler, "Von der Subversion zur Strategie. Anmerkungen zur diskursiven Karriere des Narrativs der Zweckentfremdung," in *Zweckentfremdung: ,Unsachgemäßer' Gebrauch als kulturelle Praxis*, ed. Maria Dillschnitter, David Keller (Paderborn: Fink, 2016).

lable.[33] And last but not least, Interface Critique actively seeks to expand these viewpoints beyond the western European framework and to include more female authors and contributors.[34]

This first issue tackles the versatility of the interface in five preliminary and deeply interlinked sections:

PROGRAMMATIC, where approaches for the analysis and production of interfaces are developed.
GENEALOGIES, where the histories, origins and predecessors of current interfaces are investigated.
PHILOSOPHIES, where conceptual and metaphysical assumptions of informatics and the interface are discussed.
PROJECTS, where concrete engineering and artistic practices engaging with interfaces are presented.
POLITICS, where the social relevance and implications of interfaces are highlighted.

# THANK YOU

This journal wouldn't be possible without the goodwill of and support by a whole range of people. We are thankful to the following people and institutions:

Mari Matsutoya for proofreading selected articles, Joel Scott for translating the essay by Max Bense, Joachim Haupt for accompanying the first steps of the project back in 2014,[35] Helene von Schwichow for the support during the kickoff of this journal in 2017, Alexander W. Schindler for supporting my never ending struggle with MS Word, the Heidelberg University Library and especially Dr. Maria Effinger and Dr. Katrin Bemmann for their incredible infrastructural support through their network arthistoricum.net (and Petra Zimmermann for introducing us), Frank Krabbes and his colleagues for their advice and support on print-production, the HfG Karlsruhe for financial support for translation and proofreading and especially Prof. Dr. Siegfried Zielinski for the permission to publish one of his older texts, the Vilém Flusser Archive at the Berlin University of the Arts and especially Dr. Anita Jòri for granting us access and facilitating important contacts, Miguel Gustavo Flusser for the permission to publish an until now unpublished letter from

# REFERENCES

Andersen, Christian Ulrik, and Søren Pold, eds. *Interface Criticism. Aesthetics Beyond Buttons*. Aarhus Denmark: Aarhus University Press, 2011.

Andersen Christian Ulrik, and Søren Pold. "Manifesto for a Post-Digital Interface Criticism." *The New Everyday* (2014). http://mediacommons.futureofthebook.org/tne/pieces/manifesto-post-digitalinterface-criticism, accessed on march 7th 2018.

Drucker, Johanna. "Humanities Approaches to Interface Culture." *Culture Machine 12* (2011).

Flender, Karl Wolfgang. "#nofilter? Selfnarration, Identity Construction and Meta storytelling in Snapchat." In *Interface Critique*, edited by Florian Hadler, Jachim Haupt, 163-179. Berlin: Kulturverlag Kadmos, 2016.

Galloway, Alexander. *The Interface Effect*. Malden, MA: Polity Press, 2012.

Hadler, Florian, and Daniel Irrgang. "Instant Sensemaking, Immersion and Invisibility. Notes on the Genealogy of Interface Paradigms." *Punctum 1* (2015).

Hadler, Florian, and Daniel Irrgang. „Nonlinearity, Multilinearity, Simultaneity: Notes on Epistenological Structures." In *Interactive Narratives, New Media & Social Engagement*, edited by Hudson Moura, Ricardo Sternberg, Regina Cunha, Cecília Queiroz, and Martin Zeilinger. University of Toronto, 2014.

Hadler, Florian, and Gabriel Yoran. "Default Metaphysics − Social Networks and the Self." In *Public Interest and Private Rights in Social Media*, edited by Cornelis Reiman. Oxford, Cambridge, New Delhi: Chandos Publishing, 2012.

Hadler, Florian. „Von der Subversion zur Strategie. Anmerkungen zur diskursiven Karriere des Narrativs der Zweckentfremdung." In *Zweckentfremdung: ‚Unsachgemäßer' Gebrauch als kulturelle Praxis*, edited by Maria Dillschnitter, David Keller. Paderborn: Fink, 2016.

Hadler, Florian, and Joachim Haupt, eds. *Interface Critique*. Berlin: Kulturverlag Kadmos, 2016.

Hookway, Branden: Interface. Cambridge, MA and London: MIT Press, 2014.

Kay, Alan C. "User Interface. A Personal View." In *multiMEDIA. From Wagner to virtual reality*, edited by Randall Packer, Ken Jordan. New York, NY: W.W. Norton, 2001 [1990].

Weibel, Peter. "The Art of Interface Technology." In *Sciences of the Interface*, edited by Hans H. Diebner, Timothy Druckrey, and Peter Weibel. Karlsruhe: ZKM, 2011.

Weiser, Mark, Rich Gold, and John S. Brown. "The Origins of Ubiquitous Computing Research at PARC in the late 1980s." *IBM Systems Journal 38* (1999).

Winograd, Terry, and Fernando Flores. Understanding Computers and Cognition: *A New Foundation for Design*. Norwood NJ: Ablex Publishing, 1986.

Wittgenstein, Ludwig. *Tractatus Logicus Philosophicus*. London: Routledge & Kegan Paul, 1961 [1922].