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Florian Hadler & Joachim Haupt

Towards a Critique of Interfaces

The term *interface* is as common as it is mysterious. The more it is taken for granted, the more it seems to escape our understanding and the closer we look, the more obscure the concept becomes. Interfaces are omnipresent and invisible at the same time. The trend towards unobtrusiveness is conspicuous: *deep integration, actionable notifications, ambient computing* or *shytech*—apparatuses and applications hide what happens behind the visible surface, disguising their mechanisms, operations and processes. The actual technology such as wires, processors, boards, batteries, chips, transistors, memory blocks and amplifiers disappear into the background and are sealed off in a blackbox that becomes ever more difficult to open up; with ubiquitous computing, the dissolution of computation into networked on-demand resources, virtual machines and hardware simulation, and converged and decentralized infrastructures for storage, information and data, we are facing a techno-ecological surrounding that is only accessible through the interfaces of connected apparatuses. The technology is not only boxed in, but it also dissolves into the environment.¹

This emphasis of the surface and the accompanying withdrawal or dissolution of the inside could be considered a simple dialectics of technological realities: visibility implies invisibility and perceptibility implies imperceptibility. At the same time, apparatuses and applications are not purely passive tools but active agents, creating the subject of the user.² Just like every other device,

¹ Gilbert Simondon anticipated this dissolution of technology in 1958, when he reflected upon the cultural integration of the technical object and the rise of information and cybernetics: “[...] aujourd’hui, la technicité tend à résider dans les ensembles; elle peut alors devenir un fondement de la culture à laquelle elle apportera un pouvoir d’unité et de stabilité, en la rendant adéquate à la réalité qu’elle exprime et qu’elle règle.” Gilbert Simondon, *Du mode d’existence des objets techniques* (Paris: Editions Aubier, 2012), 16.

² Branden Hookway presents a comprehensive and philosophically informed concept of the interface in his dissertation. He highlights the effects of subjectification through the interface: “The subject of the interface finds as its counterpart the user of the interface, just as the user’s

they guide and govern behavior through the selection and limitation of possible interactions through management of expectations and conditions. Networked apparatuses and applications are also able to measure and track interactions, create behavioral metrics and funnel analysis in order to optimize their designs and functionalities and to integrate deviation and misapplication. Every abuse might become a feature. Every violation is a possible source of innovation. Interfaces use their users as much as the users use them.

Furthermore, the perceivable aesthetics of apparatuses and applications—what one might call graphical user interface—is regulated and constricted by the companies that build them. Apple was among the first companies to promote their own set of human interface guidelines as online specs in the aftermath of the iPhone launch.³ Their approach had a strong impact not only on a cultural level, but also on a strategic and economic one. Easing the design process by offering clear rules and principles, they not only encouraged third party developers to work on their iOS platform, but in return also boosted the attractiveness of their product by integrating ever more apps and services, rendering the mobile device as an empty canvas on which users could project their own needs and desires—a narrative that resonated strongly with Apple’s marketing strategy. Publishing the human interface guidelines online was just the last step of a marketing effort that started much earlier. Since the early 1980s, a sales force of so-called *evangelists* has been gathering support among developers for the technology provided by Apple.⁴ These quasi-religious initiatives,⁵ promoting a better world through technology by advocating how an interface should work

learning or mastery of the interface is at the same time a kind of subjectification.” Branden Hookway, *Interface* (Cambridge, Massachusetts: MIT Press, 2014), 5.

³ For the most recent iOS interface guidelines, see “Designing for iOS,” *iOS Human Interface Guidelines*, accessed December 29, 2015, <https://developer.apple.com/library/ios/documentation/UserExperience/Conceptual/MobileHIG/>.

⁴ The term evangelism marketing is prescribed to Guy Kawasaki, although he mentions Mike Murray as the inventor of the concept: “Software evangelism is a term coined by Mike Murray of the Macintosh Division. It meant using fervor and zeal (but never money) to convince software developers to create products for a computer with no installed base, 128K of RAM, no hard disk, no documentation, and no technical support, made by a flaky company that IBM was about to snuff out.” Kawasaki takes this concept and elaborates: “Evangelism is sales done right. It is the sharing of your dream with the marketplace and the making of history with your customer. Evangelism is the purest form of sales. A Macintosh Way company doesn’t sell; it evangelizes.” Guy Kawasaki, *The Macintosh Way* (Glenview, Illinois: Scott Foresman Trade, 1989), 2, 12.

⁵ For quasi-religious beliefs in the context of Silicon Valley see also the paradigmatic and influential paper on Californian Ideology: Barbrook, Richard and Andy Cameron. “The Californian Ideology”. *Science as Culture* 6.1 (1996 [1995]): 44–72.

and look like, raise suspicion. What does it mean, if the realm of interface production, i.e. design and information architecture, is constricted and regulated by the companies who own the platforms of distribution? And what implications arise, when not only the questions of how to create an interface but also the theoretical discourses on interfaces end up as questions of branded identity and usability, as it did with the discussion of skeuomorphism (Apple) versus flat design (Microsoft) in 2012⁶ and the *Material Design Paradigm* introduced by Google in 2014⁷? These developments showcase a paradigm where visibilities and interactions are intertwined with corporate strategies and branded visual languages.

The term *critique* is not any less complex than the term interface. If one understands critique in the very basic sense that Michel Foucault suggested on what critique could be—the “art of not being governed so much”⁸—it corresponds strongly with topics of discourses around the interface. By replacing governance with guidance, it becomes clear that critique could be a way to think about the interface as a governing tool, as an apparatus that governs the user through gentle means, through so-called experience design, user guidance and usability. The interface in this perspective can be described as means of governmentality, of institutionalization or territorialization, developing patterns of social behavior, of social practices, rules and structures, conditioning actions within specific contexts and measuring behavior to improve efficiency. But critique in the Foucaultian sense does not only imply awareness of the mechanisms of governance, but also of the historicity of interfaces. It focuses on the conditions and contingencies of the present by tracing its predecessors, by examining the decisions, contexts and discourses that have led to the present. Critique therefore aims to expose the implicit principles of governance and, at the same time, to develop an alternate past, an alternate presence and also an alternate future.

⁶ For a long time Apple has been following the principles of skeuomorphism, wherein the software design attempts to imitate natural or realistic shapes. With Windows 8, Microsoft challenged this paradigm by using a more minimalistic *flat* design.

⁷ Google presents a holistic approach to their design principles: “We challenged ourselves to create a visual language for our users that synthesizes the classic principles of good design with the innovation and possibility of technology and science. This is material design.” “Introduction—Material Design,” *Google Design Guidelines*, accessed December 18, 2015, <https://www.google.com/design/spec/material-design/introduction.html>.

⁸ As Michel Foucault said in his response to Immanuel Kants concept of Critique as Enlightenment: “And I would thus propose this general characterization as a rather preliminary definition of critique: the Art of not being governed so much.” Reproduced in: James Schmidt, ed., *What Is Enlightenment?: Eighteenth-Century Answers and Twentieth-Century Questions* (Berkeley: University Press Group Ltd, 1996), 384.

Interface Critique is an attempt to interrogate apparatuses and applications. How can we examine the dissolving intersections between human and machine? How can we comprehend the contexts and conditions of their production? Where and how do these interfaces govern and guide us? How do they shape our perception of our surroundings and of our world? And what significance could the interface have in the context of current technological, social and economical developments?

There have already been numerous approaches to and discourses on the interface: arts and aesthetics, media studies and cultural studies, economics and ergonomics as well as numerous other disciplines have been gathering at least since the 1960s to discuss effects, implications and tendencies of what each of them calls interface.⁹ Some of the discussions are revisited within the course of this book to put the concept of the interface into question again.

We therefore see it as vital to understand the obscurity and fuzziness of the concept as a chance for theoretical productivity and welcome its frictions and contradictions.¹⁰ The aim of this book is to open up a multidisciplinary space to showcase what an interface could be and how it might be critiqued. The aim is to understand the phenomenon of the interface in its dynamic developments and as a cultural phenomenon, in order to develop critical perspectives beyond mere aspects of usability and design principles on one hand and reflexes of cultural pessimism on the other.

The contributions to this book come from a diverse range of disciplines, ranging from engineering and coding to design and communications, from

⁹ Some of the more recent works that influenced and inspired us during the course of this project are: Lev Manovich, *Info-Aesthetics* (London: Bloomsbury, 2015); Johanna Drucker, *Graphesis: Visual Forms of Knowledge Production* (Cambridge, Massachusetts: Harvard University Press, 2014); Branden Hookway, *Interface* (Cambridge, Massachusetts: MIT Press, 2014); Paul D. Miller and Svitlana Matviyenko (Eds.), *The Imaginary App* (Cambridge, Massachusetts: MIT Press, 2014); Alexander R. Galloway, *The Interface Effect* (Cambridge, UK: Polity Press, 2012); Christian Ulrik Andersen and Soren Bro Pold (Eds.), *Interface Criticism: Aesthetics Beyond the Buttons* (Aarhus Denmark: Aarhus University Press, 2011); Erich Hörl (Ed.), *Die technologische Bedingung: Beiträge zur Beschreibung der technischen Welt* (Frankfurt am Main: Suhrkamp, 2011); Andreas Broeckmann and Knowbotic Research, *Opaque Presence: Manual of Latent Invisibilities* (Zürich: Diaphanes, 2010); Hans H. Diebner, Timothy Druckrey, and Peter Weibel (Eds.), *Sciences of the Interface* (Tübingen: Genista, 2001); Brenda Laurel, *The Art of Human-Computer Interface Design* (Reading, Massachusetts: Addison Wesley, 1990).

¹⁰ This approach takes cues from the concept of Variantology, that Siegfried Zielinski developed for his media-archeological explorations. Siegfried Zielinski and Silvia Wagnermaier, "Depth of Subject and Diversity of Method—An Introduction to Variantology," in: *Variantology 1: On Deep Time Relations of Arts, Sciences, and Technologies*, (Köln: Walther König, 2005), 8.

digital humanities and philosophy to media studies and literature. In the various perspectives of each text, it becomes clear that the concept of the interface not only connects human and machine or machine and machine, that it not only enables and normalizes communication with and through technology, but that it also connects these various domains. In order to understand interfaces in their complexity, we need to consider not only the discourses of aesthetics and technologies, but also the broader cultural contexts, the social implications and effects, the histories and genealogies, and all associated domains. Some of these aspects are reflected in this first volume.

Sabine Wirth starts with a comprehensive overview of interface theory and explores the analytical and theoretical potential of the term interface from the perspective of media studies. Building upon many recent contributions to interface theory, she argues for an understanding of interfaces as *everyday media* by stressing their mediality and the importance of how they are being used.

Konstanty Szydłowski encounters the fuzziness of the term with the exploration of the interface's philosophical debts and political implications. By re-appropriating the Kantian concept of imagination (*Einbildungskraft*) and the Heideggerian concept of the tool he provides outlines of a concept of the interface, that takes into consideration its philosophical predecessors and its political responsibilities.

Daniel Irrgang offers a diagrammatically informed perspective on interfaces. Combining diagrammatic principles such as topology and spatiality with a genealogy of the Graphical User Interface and insights into cognitive science, he extends the scope of interface design and theory.

Lukas Hartmann approaches the question of the interface in a very practical way and opposes the uncontrollable complexity of contemporary apparatuses. He not only programs an operating system from scratch that operates with a different logic of representation, but also builds the machine who runs it—everything under the premise of minimalist design.

Frank Hegel describes an experimental setup with social, anthropomorphic robots and their perception by humans. His research applies psychological methods to engineering techniques and offers insights into measurements and effects of human-likeness.

Gabriel Yoran looks at the concept of the cyborg as an interface. Drawing from contemporary philosophies such as object-oriented ontology and speculative realism, he discusses the cyborg as an object among objects that could help to overcome anthropocentrism.

Olia Lialina describes the dark side of the interface by discussing what she calls the *desktopization of war*. She juxtaposes military interfaces and the

promises of *Rich User Experience* in the context of early Web 2.0 and reminds interface designers of their responsibilities.

Clemens Jahn follows a similar concern when he conceptualizes user interfaces as social operators. In his examples of mobile recruiting and sexism in video games, he points to the fine line between inclusion and exclusion in the context of interface design.

Karl Wolfgang Flender looks at the narrative dimensions of interface production. With a case study of Snapchat he develops the notion of the interface designer as a meta-storyteller, who both empowers and restricts the ways users narrate themselves through the service.

Joris J. Van Zundert and Tara L. Andrews examine the concept of the interface from the perspective of digital humanities. They present a self-developed interface that allows textual scholars to work with digitalized texts in a new way beyond linear book culture.

Angel Callander explores failed connections, glitches and error aesthetics in the context of Human-Computer Interaction. Discussing different artworks and projects, she applies the notion of the abhuman and posthuman to empathic interaction with interfaces.

Konstantin Daniel Haensch analyzes magic as an attribute of interfaces from a media-archaeological perspective. Looking at the silent movie *Faust* from 1926, he provides insights into the mythical predecessors of current interface paradigms.

The chapters are separated by small inserts, showcasing the historical and genealogical links of the concept of the interface through different schematic drawings taken from patents from every decade of the last century. A brief excerpt of the patent descriptions complements each drawing and highlights the varying usage and different contexts of the term interface. The inserts showcase the paradoxes and oppositions, not only in contrast to the rather theoretical approaches in this book, but also within the field of technological applications. And they might be nice to look at.

This book is the outcome of an international symposium that took place in November 2014, organized by a “Special Interest Group” at the Berlin University of the Arts. We would like to thank all involved students—Elena Dellasega, Melanie Ganz, Christian Karaschewitz, Dominikus Mucha, and Laurenz Schaller—for their enthusiasm and commitment. We would like to thank all participants of the symposium and everyone who was involved for their work and engagement. We would like to thank Mari Matsutoya, Daniel Irrgang and Clemens Jahn for their valuable feedback. We also thank the Berlin University of the Arts for the comprehensive financial support for this publication: the Commission for artistic and scientific projects (KKWV), the Scientific Advisory Board, the Student

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This book is intended to be the first volume of an ongoing series. You can find updates and more information on the accompanying website interfacecritique.net.

References:

- Andersen, Christian Ulrik, and Soren Bro Pold. *Interface Criticism: Aesthetics Beyond the Buttons*. Aarhus Denmark: Aarhus University Press, 2011.
- Apple. "Designing for iOS." *iOS Human Interface Guidelines*. Accessed December 29, 2015. <https://developer.apple.com/library/ios/documentation/UserExperience/Conceptual/MobileHIG/>
- Barbrook, Richard and Andy Cameron. "The Californian Ideology". *Science as Culture* 6.1 (1996 [1995]): 44–72.
- Broeckmann, Andreas, and Knowbotic Research. *Opaque Presence: Manual of Latent Invisibilities*. Zürich: Diaphanes, 2010.
- Diebner, Hans H., Timothy Druckrey, and Peter Weibel. *Sciences of the Interface*. Tübingen: Genista-Verlag, 2001.
- Drucker, Johanna. *Graphesis: Visual Forms of Knowledge Production*. Cambridge, Massachusetts: Harvard University Press, 2014.
- Galloway, Alexander R. *The Interface Effect*. Cambridge, UK ; Malden, MA: Polity Press, 2012.
- Hookway, Branden. *Interface*. Cambridge, Massachusetts: The MIT Press, 2014.
- Hörl, Erich. *Die technologische Bedingung: Beiträge zur Beschreibung der technischen Welt*. Frankfurt am Main: Suhrkamp Verlag, 2011.
- Google. "Introduction—Material Design." *Google Design Guidelines*. Accessed December 18, 2015. <https://www.google.com/design/spec/material-design/introduction.html>.
- Kawasaki, Guy. *The Macintosh Way*. Glenview, Illinois: Scott Foresman Trade, 1989.
- Laurel, Brenda. *The Art of Human-Computer Interface Design*. Reading, Massachusetts: Addison Wesley Pub Co Inc, 1990.
- Manovich, Lev. *Info-Aesthetics*. London: Bloomsbury Publishing, 2015.
- Miller, Paul D., and Svitlana Matviyenko (Eds.). *The Imaginary App*. Cambridge, Massachusetts: MIT Press, 2014.
- Schmidt, James, ed. *What Is Enlightenment?: Eighteenth-Century Answers and Twentieth-Century Questions*. Berkeley: University Press Group, 1996.
- Simondon, Gilbert. *Du mode d'existence des objets techniques*. Paris: Editions Aubier, 2012.
- Zielinski, Siegfried, and Silvia Wagnermaier. "Depth of Subject and Diversity of Method—An Introduction to Variantology." In *Variantology: On Deep Time Relations of Arts, Sciences, and Technologies*, 7–12. Variantology 1. Köln: W. König, 2005.

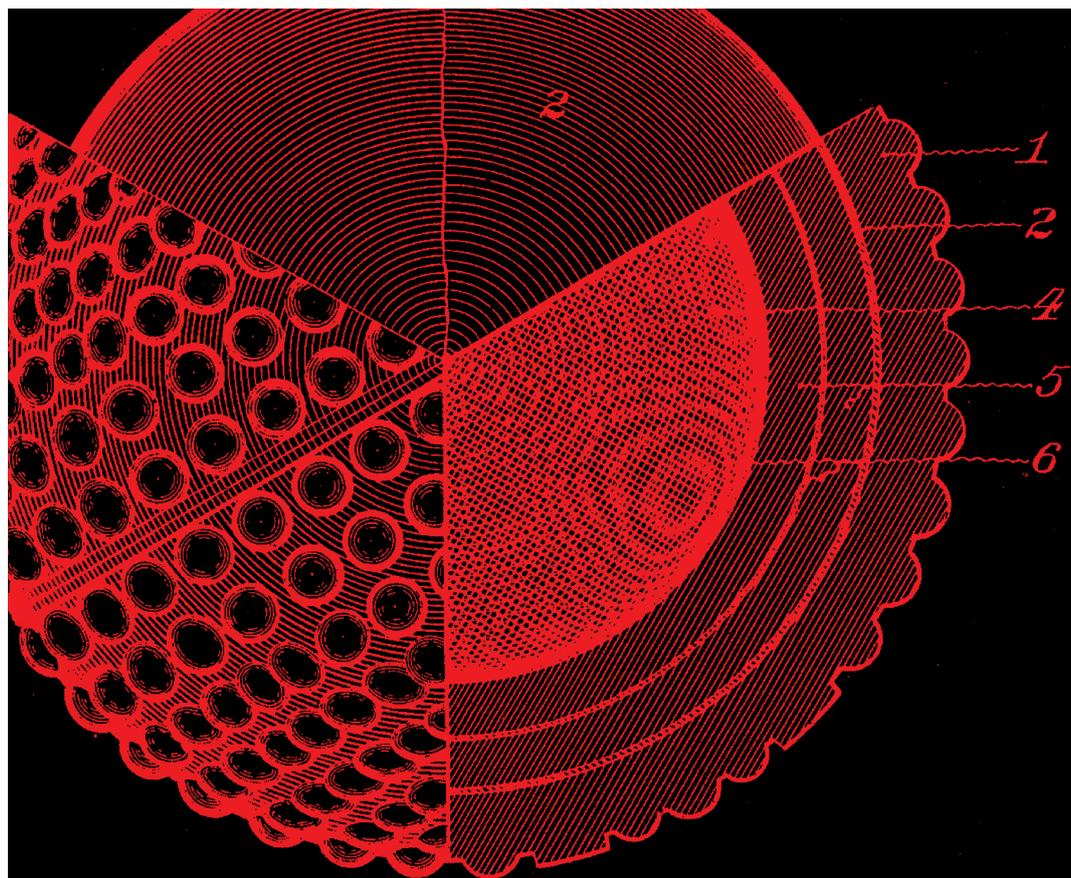
“...A golf-ball, the core or center of which is composed of an inner elastic spherical portion, and an outer series of spherical layers or stratum of rigid material separated by thin interfaces of a different material to afford a local surface movement of one layer or stratum upon the other...”

Title: Golf-Ball

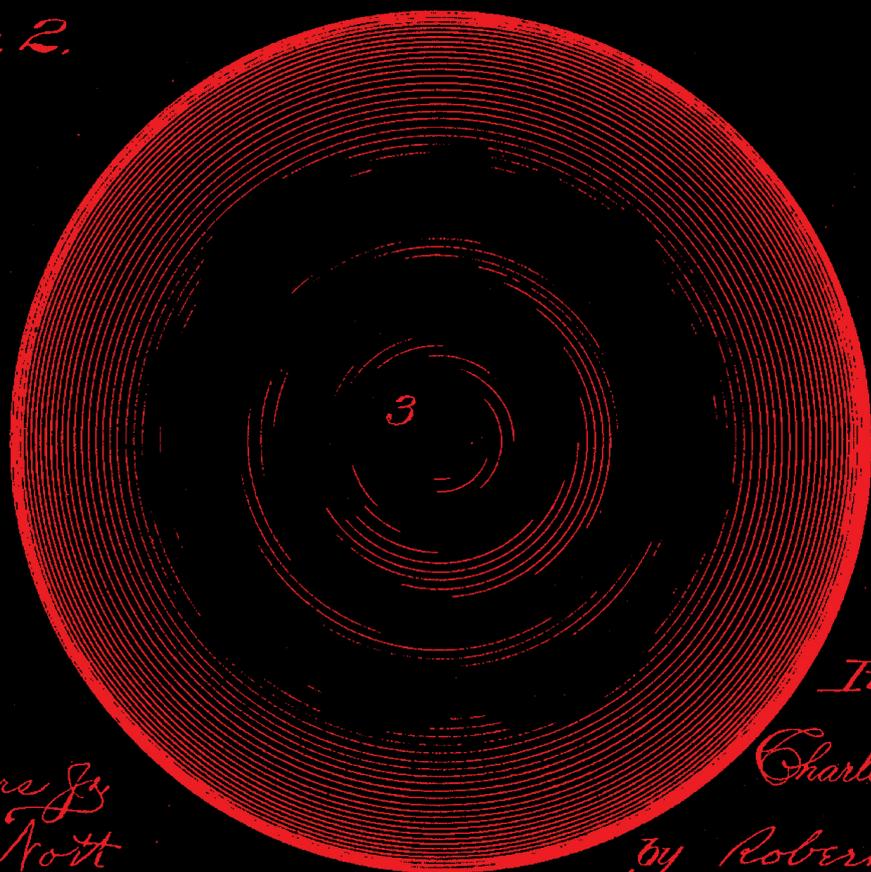
Inventor: Charles Edward Boutwood

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Kott

Inventor:
Charles E. Boutwood,
by Robert Burns
Attorney.