SPECIAL SECTION:

INTERFACES AS EXPERIMENTAL ARRANGEMENTS

The design and functioning of interfaces can be understood in several respects as an experimental arrangement in which the relationship between different actors and process levels – for example between hardware and software, APIs and/or human users – is modelled and updated, sometimes in real time. Throughout, cultural assumptions, technical constellations, and design decisions are guiding these diverse, conscious and unconscious interaction processes.

Inherently, the process of interaction and interface design carries presuppositions about conceivable interactions which are inscribed in the design process, and consequently subjected to various forms of experimental testing on the way from development to evaluation. The spectrum ranges from the codification of the experimental dimension of interface and interaction design itself (e.g., in various 'labs') to forms of usability testing reminiscent of social experiments. An 'experimental' dimension, however, is also evident in the permanent evaluation and updating of the various possibilities of the actors involved during an interface interaction. Media environments in this context are not only to be thought of from the point of view of the perception or positioning of a human subject, but in particular from the point of view of the affordances mediated by interfaces. In addition to practices of an 'experimental' (deviant, unusual) use of interfaces, it is particularly important to discuss the extent to which interfaces are not only objects of experimentation, but also contribute to establishing and stabilising experimental

configurations within a digital media culture at large.

This special section on interfaces as experimental arrangements discusses concrete case studies on the basis of which this negotiation of different actor potentials at and in interfaces becomes apparent. Especially in the application domains of sensor technology and artificial intelligence, the relationship between human/world/non-computer and computer is shifting towards new input logics and practices. Traditional command structures and input forms familiar from established personal computing paradigms are currently being replaced by relationships in which what matters most are the hardware-software relationships created for them, ready for sensing, as 'actors.' What becomes an input for these sensory computer forms, when and how, is decided by the hardware-software relations that have to be programmed in advance. Thus, the question is raised when the 'experiment' of making the world or some form of environment readable begins in each case and how it is balanced in a concrete interface situation.

A first contribution to the section by Timo Kaerlein traces the development from the distributed testing of web interfaces in the field of e-commerce by means of A/B testing with randomized groups of users to current approaches of sensor-based and data-driven testing environments. He argues that the epistemology, politics, and ethics of web testing infrastructures and its concurrent cultures of experimentation serve as blueprints for a sensor-based experimentation in the wild which situates

(often unsuspecting) 'users' in far-reaching experimental setups.

Another site of interfaces as experimental arrangements is the so-called 'science fiction prototyping,' which Christoph Ernst explores critically in his contribution. Science fiction prototyping is an attempt at an experimental form of interface design, in which an orientation towards science fiction literature, understood as an 'experiment', is used as a guiding principle of design to imagine and evaluate the development of interface prototypes. The contribution gives a concise overview of this approach and problematises it from a media theoretical perspective, focusing in particular on the question of the mediality of future interfaces.

Popular application contexts such as the smartphone app FaceApp also raise the question – as Sabine Wirth discusses in her contribution – of how such commercial offerings, which force a playful-experimental approach to the photographic image, simultaneously become effective as surveying and data collection practices. In the case of FaceApp, this results in a tension between the creation of a prognostic, future image, which is generated with the help of artificial neural networks, and the further – controversially discussed – collection of biometric user data.

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