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# Stubborn Materialities / Unruly Aesthetics

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Crafting Interactive Systems: Learning from Digital Art Practice

**Abstract**

Digital and interactive art has reconfigured the relationship between art and technology as well as restructured the discourse within the artistic field itself. Inextricably tied to a reflection on its medium digital art must highlight the power-effects it necessarily has to (re)produce and repeat. It does so in virtue of negative aestheticisation of its interfaces, by creating noise, frustration, perplexity. Springing from an interdisciplinary background – informed by social sciences, informatics, rhetoric, literary studies and philosophy – we provide a discussion aware of specificity and historicity of its theoretical constituents. In doing so, we hope to contribute to a tentative genealogy of digital art as an expressive practice. Lastly the text itself is product of dynamic friction between positions of observation and engagement, reflexive and poietic practices. It wants to be read as a conceptual experiment.

**Author Keywords**

Art; genealogy; noise; power; subjection

**ACM Classification Keywords**

H.5.m [Information Interfaces and presentation (e.g., HCI)]: Miscellaneous; J.5 [Computer Applications]: Arts and Humanities – Performing Arts, Fine Arts; K.4.2 [Computers and Society]: Social Issues

## **Introduction**

Digital art unites and connects the realms of art, culture, science and technology. It is a field in which innovation is produced strategically by means of modern computer technologies. Incessant reflection on the technological conditions, limits and potentials of its reproduction constitutes one of its defining features. Modes of interaction between human and technology form a central topic within its discourses.

## **Artist & Audience**

The field of digital art is characterised by heterogeneous constellations and networks of actors. New forms of interdisciplinary collaboration initially present themselves by sheer necessity, demanded by complexities residing within required technical and creative skillsets. However, these forms of collaboration also are promoted explicitly in a strategic fashion. Consequently, cooperation among artists, engineers, designers and scientists is common practice. Subsequent paradigm shifts call for revaluation of the question, who could be designated as an artist. Furthermore, within the realm of the digital any artist can adopt multiple types of roles. Apart from being a first-person creator in the classical manner he can as well act as catalyst for other people's creativity. [1]

Interactive art is the prime example of this course of action. It conceives art as play while requiring the recipient's active and bodily involvement to be fulfilled. Whereas traditional artists were considered authors of their work, the creator of interactive art is building space for and inspiring other people's creativity. It

seems as if the death of the author<sup>1</sup> is extending into an extinction of authorship.

Another radical change, which can be highlighted in reference to interactive art, concerns the relationship between artist and audience. The relationship to an audience is constitutive for every artwork, it motivates and influences creation. This has been well known for some thousand years. In the 4<sup>th</sup> century BC the greek philosopher Aristotle was the first to write a systematic paper on the art of rhetoric, stating that of the three constituents of speech-making – speaker, subject and hearer addressed – it is this last element, the audience, that steers and determines the speech and its making. [3] Nonetheless, in speech-making as well as in traditional artistic creation the audience remains virtual until the moment of performance or exhibition. In contrast, interactive art integrates the actual audience into the process of artistic creation. As the recipient is required to actively take part in the work's fulfilment, the process of artistic creation is broadened. At the same time the artist gives up his or her position as an absolute ruler over the design process.

## **Collaborative Design / Artistic Creation**

This new relationship between artist and audience in interactive art can be compared to a phenomenon occurring within collaborative design processes– in digital art as well as in interface design projects. Whenever several practitioners take part in such a process of creation, one is a designer/artist while at the same time posing as audience for her co-workers. At this point it has to be emphasized that collaboration is

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<sup>1</sup> The concept was first proclaimed by Roland Barthes in 1967 in reference to literary studies [2]

nothing less than a consistent phenomenon, especially within interdisciplinary contexts. Its manners can differ broadly and range from mere delegation of technical and problem-solving tasks to cooperation on a level playing field, including equal participation in conceptualisation as well as project management. Mostly, there are no operating guidelines and a *modus operandi* needs to be established through negotiation. Negotiations, as the sociologist Anselm Strauss describes them [4], are a way of establishing social order and include interaction as well as communication practices. The crucial point here is that technologies and technical artefacts take part in these negotiations – in digital art projects as well as in our everyday lives. Not only do they act as intermediaries in interpersonal communication, but have interactive and communicative value in their own right. In science and technology studies (STS) there exists a broad discourse about that topic. Conceptions range from low- to high-level technical agency, offering, for example, different routes of access for empirical studies. One of the most popular and transdisciplinary received approaches in this context is Actor-Network Theory (ANT), developed by Bruno Latour, Michel Callon and others. [5]

### **Power & Resistance**

Not only do technological aspects of interactive and digital art have creative and communicative value in their own right, but are also strongly connected to aspects of power. Grasped in the Foucauldian way power is neither substance nor structure. Rather it is relational, circulating between bodies and subjects in a microphysical manner, carrying out itself in a network of different elements of resistance. [6] Foucault states that disciplinary power and normalization are the power mechanisms playing a leading role in today's society.

He characterises the Panopticon as the architectural manifestation of this composition, where the principle of power reveals itself as an arrangement of bodies, surfaces, lights and gazes. As a result of this arrangement, the imprisoned subject takes over the instruments of power, playing them against itself and hence steering its own subjugation. [7] Within the realm of technology power mechanisms manifest themselves in the form of constricting interfaces. Bound to discrete input and output options the user's creative potential and her ability to act are contained and subjugated to a preformatted possibility space. The specific features of technical artefacts and environments see to the fact that the chances of nonconformist conduct remain small. Subjective action is rendered inconsequential on the level of the surface language. When confronted with a technological interface there is no persuasion or argumentation. Categories embodied within its construction cannot be refuted afterwards. Its rejection becomes a material impossibility. The only option being a romantic resignation to the role of Luddites, removing oneself from the stream of communication. Wherever technology is produced, psychic repressions are no longer necessary. In result the moment of internalisation of disciplinary power gets weakened. Users' bodies no longer need a soul to be imprisoned by, for they are imprisoned in a universe of predetermined orbits.

The good news: There is hope. As Foucault states, where there is power there is resistance. Precisely: Resistance is inherent in power, since the latter carries itself out in a network of different elements of resistance as stated above. In result single points of resistance can only exist within the field of power

relations stretched out. [7] But what specific shape can these single resistances take? From the perspective of information theory the aesthetic consequence of non-conformism in an expressive space reduced to information processing is noise. It is perceived as disturbing the pattern of symbolic space, while inextricably bound to its production. It is the uncanny contrast of 'neat' surfaces and noisy information-like interaction space that marks the unique dilemma of what research has called human-computer interaction. Opposing smooth operation of the machine, noise represents the aesthetic other of the system and marks re-entry of the excluded human element into the realm of technological aesthetics.

What to achieve with noise then? Is it nuisance as positivist theory would have us believe, or tool and weapon? Wherein lies its potency?

In art noise and jagged lines try to resist aesthetical oppression, apostrophising themselves as resistance. They are what irritates and insults the onlookers gaze.

## References

- [1] Bruckman, A. Cyberspace is not Disneyland: The Role of the Artist in a networked World. In *Subjektivität und Öffentlichkeit. Kulturwissenschaftliche Grundlagenprobleme virtueller Welten*. Ed. M. Sandbothe; W. Marotzki. Herbert von Halem Verlag (2000), 213.
- [2] Barthes, R. The Death of the Author. In *Art and Interpretation: An Anthology of Readings in Aesthetics and the Philosophy of Art*. Ed. E. Dayton. Broadview Press (1998), 383-386.
- [3] Aristotle. *On Rhetoric*. Ed. G. A. Kennedy. Oxford Univ. Press (1991), I,3.

The empowering potential to be designated here lies in the uncovering, in aestheticisation in the original sense of the word. Viewers can feel that their consciousness is strained and atomised, they can feel that something uncanny is going on.

## Conclusion

There is no escaping the inescapable necessity of reproducing power. Technology cannot be abandoned, not effectively. Spaces, public and private will continue to be permeated by information systems and it cannot be helped. Within this situation, digital and interactive art produces new forms of aesthetic resistance by establishing a radically new conception of art, artist and audience. Introducing a playful component into the relationship between technology and individual, it provides a novel array of situational configurations. Contained within those is the possibility of perceiving power mechanisms sensually, thus rendering them accessible to discourse. Eventually, facilities for their selective circumvention can emerge.

[4] Strauss, A. *Continual permutations of action*. De Gruyter (1993).

[5] Latour, B. *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford Univ. Press (2005).

[6] Foucault, M. *The History of Sexuality, Vol. 1: An Introduction*. Pantheon Books (1978), 95-96.

[7] Foucault, M. *Discipline and punish: the birth of the prison*. Vintage Books (1979), 201-209.