

Das digitale Bild - Reflexionen zur kreativen Praxis

Philipps-
Universität Marburg
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Tagung des
DFG-Schwerpunktprogramms
„Das digitale Bild“

Web: <https://www.digitalesbild.gwi.uni-muenchen.de>
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Conference “Creative Practices and Reflections on the Digital Image”

Abstracts

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PANEL 1 – IM/MATERIALITIES

Alexander Galloway, “Digital Images Without Computers”

Moderation: Jameson 2.0. Cognitive Mapping in Contemporary Art

Analog life, rational paradox, practical limit – the analog world still holds sway even in the digital age. Narrating two lesser known episodes from the history of digital image, this lecture will discuss how both digital and analog elements exist within seemingly digital images. By reanimating the past – and sometimes rebuilding it in software – we will investigate the intricate algebraic patterns woven into textiles by Ada K. Dietz in the 1940s, and the striking artificial - life simulations of Nils Aall Barricelli made after the war. Beyond simply a description of the past, we will also consider the future of aesthetics in the digital age.

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PANEL 1 – IM/MATERIALITIES

Rosa Menkman, “Untangling resolution”

Moderation: The Processed Picture: Imaging in the Age of Photoshop

A resolution is often expressed as a qualitative measure of acutance, evaluated in for instance DPI, pixels in width and height, bits per second or depth of color. However, this is a stark oversimplification of the term resolution. In reality, the resolving of an image is a process that encompasses all levels of the rendering pipeline. Think for instance about a simple optical imaging technology such as analogue photography. Here the shutter speed and lightning of an object are chosen in consideration of the material affordances of film. However, in analogue photography, a history of racial bias has left its (sometimes invisible) traces on the political and financial affordances of photographic film. Even in analogue photography, there are therefore visible and invisible compromises that are part of the resolved image. The conflation of the meaning of resolution into a qualitative measure obscures the complexities and politics at stake in the process of resolving. To garner a better understanding of our technologies, the practice of resolving itself needs to get ‘resolved’; or rather, it needs to be disentangled to refer not just to a final output, but to the procedural construct through which data flows, functions and is compromised.

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PANEL 2 – ANALOG / DIGITAL

Hell Gette, „#Landschaft 3.0”

Moderation: Adaptive Images. Technology and Aesthetics of Situational Imaging

In her presentation, the artist Hell Gette introduces her artistic work and approach. She writes, “The ‘#Landschaft3.0’ is the landscape painting of the future. A back and forth between digital and analog techniques, accomplished in classical oil painting.”

In her “#Landschaft3.0” there are forms and graphic elements that spring from early image processing programs. They give an indication of the artist’s creative practice. In the process of creation, Gette alternates between digital and analog techniques. Emojis populate her surreal landscapes, bringing the visual worlds to life. The pictograms, familiar from communication platforms, are placed on the canvas in an impasto application of paint. They form a strong contrast to the underlying flat, computer-graphic elements that shape the landscape. From the dimension of the landscape, its perspectives, the haptically

appealing pictorial forms and the narrative emojis, the viewer is invited to immerse himself in Gette's landscape painting of the future.

The presentation will be held in German.

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PANEL 2 – ANALOG / DIGITAL

Discussion with Aram Bartholl

Moderation: Adaptive Images. Technology and Aesthetics of Situational Imaging

Aram Bartholl uses sculptural interventions, installations, and performative workshops to question our engagement with media and with public economies linked to social networks, online platforms, and digital dissemination strategies. He addresses socially relevant topics, including surveillance, data privacy and technology dependence, through his work by transferring the gaps, contradictions, and absurdities of our everyday digital lives to physical settings. In his talk "Hypernormalisation" he will present a selection of projects and recent works in relation to the digitale image.

The presentation will be held in German.

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ARTISTIC INSERT

Helena Nikonole, „Artificial Intelligence for Image Production: Artistic Perspectives“

Over the last 7 years we have been witnessing the development of Artificial Neural Networks for image production: from Google Deep Dream and StyleTransfer algorithms to GANs (Generative Adversarial Networks) and CLIP (Contrastive Language-Image Pre-Training) architecture for text-to-image generation. While these instruments are becoming more accessible, many artists start using them in their practices. However, artistic approaches differ from what we see in design or computer science research. While scientists consider the results they get through the Neural Network training from the perspective of optimization or utility, artists are looking for specific agency and the aesthetics of technology through its creative misuse, poetic abuse and hack. We will study different AI architectures for image production and the artistic twists and hacks of these instruments.

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PANEL 3 – DESIGNING PROCESSES

Nathalie Bredella, „Architecture numérique: zur Operativität digitaler Bilder in der Architektur“

Moderation: Architecture Transformed – Architectural Processes in the Digital Image Space

How do digital image spaces and methods of information processing affect the conception and realization of architecture? Nathalie Bredella's contribution deals with the effects and aesthetics of digital images in the design process and explores the interactions between techniques of data processing, visualization and fabrication of architecture. Of importance are the technical constellations, resistances, and alliances that characterize design approaches of the 1990s in particular, and their contemporary effects on architecture.

The presentation will be held in German.

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PANEL 3 – DESIGNING PROCESSES

Michael Rottmann, „Programmierte Bilder. Zur Produktion und Theoretisierung des digitalen Bildes am Beispiel der künstlerischen Computergrafik der 1960er Jahre“

Moderation: Architecture Transformed – Architectural Processes in the Digital Image Space

The digital image as a computer-based image is determined by its respective technical conditions and is thus a historical phenomenon.

In order to gain insights into the constitution of the digital image in the 1960s and further into its mode of being, the article reconstructs and analyzes the production of computer graphics by Frieder Nake. Following approaches of image, media and cultural studies, technical processes as well as actions, especially with media, and their interplay are included in the considerations. In this way, an artistic practice centered around programming and its specificity can be demonstrated and the significant role of the diagram in this context can be revealed. Specifically, the paper will present the necessity of extending the established binary code-image relationship into that of diagram, code, and image. Finally, it will be shown why digital images are to be theorized in the perspective of the program – and thus better than via that of the (currently popular) algorithm: the digital image will be presented as a programmed image. Finally, methodological considerations will be made in a kind of self-reflection.

The presentation will be held in German.

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PANEL 4 – MACHINE LEARNING

Bernhard Dotzler, “Vom l'art pour l'art der KI”

Moderation: Coordination

Computers have been used to produce art – poetry, music, drawings, paintings – from the very beginning. As early as 1960, Denis Gabor worried whether the machine would “cut out the creative artist”. He went on to answer his question himself: “My answer is that I sincerely hope that machines will never replace the creative artist, but in good conscience I cannot say that they never could.” The computer, so far, has been used as a tool for making art. The same goes for AI. Up to now so-called AI-generated art exists only by way of “collaboration between human and machines.” Strictly speaking, however, we can say that there is AI-generated art only if – and when – its creation is not solely based on a collaboration with AI, but when the replacement of the (human) artist has happened completely. In this respect art teaches the same lesson about AI as any other field of application (e.g., the driverless car): AI aims to abolish man. But the other way round, is there any lesson to be learned? A lesson that AI teaches about art?

The presentation will be held in German.

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PANEL 4 – MACHINE LEARNING

Roland Meyer, „Muster und Masken. Gesichtserkennung als Bildpraxis“

Moderation: Coordination

Automated face recognition is a practice of digital image comparison. Whereas in the early days of the technology, people relied on “biometric” portraits made specifically for this purpose and the measurement of isolable anatomical features, today's machine learning-based algorithms search for statistical correlations and recurring patterns in huge volumes of images available online. The images we take of ourselves and share online have thus become a valuable resource that is siphoned off by commercial and government actors alike, evaluated and used for training and testing new algorithms. Without a digital image culture that has made everyday images of faces available in previously unknown quantities through

the coupling of smartphones and social media, facial recognition in its current form would be inconceivable. This ever closer link between image-cultural practice and algorithmic evaluation, between human visual acts and machine pattern recognition, has consequences that are the focus of the planned lecture. If you search for patterns in huge amounts of image data, you will also find patterns – but at the same time the visual stereotypes and discriminating exclusions of today's digital image cultures are inscribed in the technology. The image-cultural patterns of the present thus harden into "masks," into technical norms and standards that will also determine our future digital everyday life.

The presentation will be held in German.

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PANEL 5 – ACCESSIBILITY

Christl Baur, "An[Other] Creativity in AI"

Moderation: Coordination

Art shows the impact of AI on all areas of life, including politics, economics, culture, and society. It encourages reflections and debates that are more transversal and multifaceted and connects facts and fictions beyond what is dictated by politics or the market. This is the role that art should have in all areas of global relevance for society. AI and art are two ways to understand the impact of AI. The criticality is not generated by the art nor the technology, but from conversations and societies influencing it. The human success story is based on creative intelligence which allows us to create and use technologies and instruments. On the other side, it is based on our social intelligence, which has allowed us to form relationships and foster a culture that encourages collaboration. This enables us to express all forms of AI, to change or hack it. Instead of asking whether machines are creative and can produce art, we should ask if we can appreciate art that we know was made by a machine. The role of Art in AI is not only fascinating but necessary.

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PANEL 5 – ACCESSIBILITY

Felicity Tattersall, "How do creatives use Digital Images?"

Moderation: Curating Digital Images: Ethnographic Perspectives on the Affordances of Digital Images in Museum and Heritage Contexts

Digital images are an invaluable source of reference material and information for researchers and creatives. They can become critical starting points, and used to generate starting creative exercises. In addition, they can provide key contextual reference information and can be used to support the construction of a particular narrative for a range of creative projects. Artist Felicity Tattersall will draw on examples of projects she has worked on with museums and cultural organizations, and discuss a range of projects where digital images are used in a variety of ways. She will also provide an analysis of her process; describing how depending upon the project, she will identify and define the sort of image she is looking for before embarking on a search, how and where she finds digital images, how she reorganizes these images, ('collects' them), and other considerations involved when making the selection, such as authenticity, access, representation. Finally she will discuss how she interprets elements of the digital image, such as incorporating specific details, or may draw on other elements such as the mood, tone, color palette, composition, or the way the image is constructed, (if a photograph for example). In this way, she analyzes and selects the digital image to absorb specific information from it, which might be a defined purpose (i.e. an illustration for an exhibition to tell a specific story) or to fit the brief of a client or an exploration within a personal project.

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PANEL 5 – ACCESSIBILITY

Rob Erdmann, “The use of massive multimodal images in the Rijksmuseum’s ‘Operation Night Watch’”

Moderation: Behind the Digital Image: Photographs on Community Platforms and Twitter as Repositories for Machine Learning and Journalistic Publications

“Operation Night Watch” is a multi-year project at the Rijksmuseum focused on research and conservation of Rembrandt’s largest painting, The Night Watch. In the first phase of the project, the painting was researched using a number of imaging techniques, gathering more than 50 TB of data from UV-induced visible fluorescence, reflectance imaging spectroscopy, macro x-ray fluorescence, structured light 3D imaging, and ultra-resolution photography that resulted in a 717 gigapixel visible composite image of the entire painting at a resolution of 5 µm.

To extract maximum insight about Rembrandt’s use of pigments, his painting techniques, and the detailed state of conservation of the painting and to make it accessible to a large team of researchers during the Covid pandemic, several new algorithms were designed and implemented to process the data and subsequently visualise it using a web browser. Capabilities include subpixel-precision cross-modality image registration, artefact-free multiscale image stitching, a web-based hierarchical annotation tool, neural-network based semantic analysis of micron-scale image microstructures, and a suite of tools to allow users easily to design a wide array of on-demand web-based visualisations of the enormous collection of Night Watch imaging data. The developed processing approach is sufficiently general that it now serves as a template for research and documentation of 2D artworks at the Rijksmuseum.

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PANEL 6 – BODY IMAGES

Pamela Scorzin, „Digitale Körperbilder. Zur algorithmisierten Ästhetik posthumanistischer Körper”

Moderation: Coordination / Browser Art. Navigating with Style

For some years now, we have been encountering photorealistic images of people in the media who have never lived. They have been imitated and deceptively simulated in a deep learning process by artificial intelligence (AI) using models from stock photography and open-source image databases. In addition, we further see digital body images in the arts that have been calculated by an AI using the same technological process but appear bizarrely and surrealistically deformed to us, as if they had been hallucinated or dreamed up by a (life-like) image machine – this is also the common metaphorical narrative of AI ART. AI images appear to us as an amalgam of biological patterns, geological structures, and painterly abstractions. But to which bodies do these automated digital image productions of AIs refer to, as we have encountered them in art and design for some time now? And what kind of body images are ultimately imagined in AI ART? What does the new relationship between image techniques, body image, and biotechnology look like in this context? Digitization and automation, artificial intelligence, and their associated discourses in the current techno-sciences are not only changing the very concept of creativity and artistic genius in postmodern culture, but at the same time, the extensive use of algorithms and artificial neural networks in visual culture today also opens up new questions about authorship and representation. Using the example of AI-generated body images, the lecture ventures the first definition and characterizes the algorithmized aesthetics of these new digital body images as virtual, variable, and viable. As meta-images, they impressively refer to the general modelability and transformation of the human body in post- and transhumanism.

The presentation will be held in German.

PANEL 6 – BODY IMAGES

T. L. Cowan, "Holding for Applause: Technologies of Fabulous, Transmedial Drag & Trans- Feminist & Queer Performance in Pandemic Times"

Moderation: Browser Art. Navigating with Style

In this talk, I will address the ways that networked digital technologies afforded the capacity for trans-feminist and queer (TFQ) cabaret artists to continue to gather, by using online platforms that were primarily intended for corporate and educational purposes. (When I speak about cabaret, I refer to TFQ political and satirical variety show.) Building on my 2020 article, "Holding For Applause," I will discuss the ways that the digital image became paramount as built the capacity for artists and audiences to connect with each other locally and translocally, while also radically transforming our idea of what constitutes "live" cabaret events through the use of domestic stages and stagings. I will argue that much of what previously made cabaret "live" was what I call the "labour of the audience" or "a collective performance of the spontaneous overflow of powerful feelings." As online culture moved increasingly towards a "cameras off" mode of engagement, and in the absence of multi-channel audio meeting and social media platforms, online cabaret required/s us to reimagine how audiences and performers engage with each other. Here, I will discuss two cabaret methods that artists and audiences engage in the context of online performance: technologies of fabulous (making it work when we can, how we can and where we can) and transmedial drag (moving TFQ performance materials across mediums and media). Reversing NYC and London-based performance artist Lois Weaver's adage "the only home is through the show," in pandemic times, the only way to the show is through the home and as we built and continue to build our networked domestic stages, the digital (moving) image does the critical work of keeping artists and audiences in our worlds together.

PANEL 7 – SOCIAL MEDIA

Tilman Baumgärtel, „Motive der GIF-Animation“

Moderation: Pictorial Picture Critique in Social Media. Explicit and Tacit Theorizing of the Digital Image / Image Synthesis as a Method of Knowledge Production in Art History

GIF animation is actually a completely antiquated format, but it has survived to this day as a significant element of Internet communication. As confusing and endless as its imagery may seem, there are some recurring motifs that can be explained on the one hand by the special medial form and on the other hand by its communicative meaning. "The medium is the message" - and this locates the image format in a history of the moving image that long precedes digital image media.

The presentation will be held in German.

PANEL 7 – SOCIAL MEDIA

Discussion with Andy Donaldson

Moderation: Pictorial Picture Critique in Social Media. Explicit and Tacit Theorizing of the Digital Image