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Interdisciplinary perspectives, emerging technologies, and open science

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THEORIZING AND CRITICIZING HUMAN-TECHNOLOGY RELATIONS

Interdisciplinary perspectives, emerging technologies, and open science

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1 INTRODUCING THE JOURNAL OF HUMAN-TECHNOLOGY RELATIONS

The relations between humans and technologies are manifold, intricate, and complex, and play a crucial role in today's societies. From AI systems to climate engineering technologies, and from smart environments and genome editing technologies to nanomaterials: technologies help to shape the ways in which we behave, live our lives, understand the world, make decisions, and organize society. Investigating the character and implications of human-technology relations, therefore, is of utmost importance, both academically and socially.

This new journal aims to be a platform for precisely this investigation. Rooted in Philosophy of Technology and Science and Technology Studies, it brings together a variety of disciplines that all shed light on specific dimensions of human-technology relations, including Design Research, Human-Computer Interaction, Ethics, Artistic Research, Communication and Media Studies, Psychology, Cultural Anthropology, and Political Theory. Our journal combines theoretical and empirical analyses of human-technology relations, as long as they contribute to a better understanding of the character, structure, and implications of the relations between humans, technologies, and societies.

The Journal of Human-Technology Relations builds on a community of scholars that has developed during several conferences on the Philosophy of Human-Technology Relations, which were organized in Twente (2018 and 2020) and in Copenhagen (2022). At these conferences, the convergence of disciplines proved to be crucial to developing a better understanding of the societal, cultural, and existential role of technologies. Moreover, approaching human-technology relations from a design perspective appeared to open many new and fruitful roads of investigation, as well as new possibilities to connect academic scrutiny to societal relevance.

We deliberately decided to make JHTR an open-access journal, in the diamond model. This means that publication is free for the author and access to the publication is free for the reader. We believe that this diamond model of publishing is doing justice to the public role of academia: academic publications are to be arranged by academic institutions themselves, not by private companies. This has major implications for these institutions, though. It means that universities need to take up the responsibility to make this model work, since it is not possible to publish a journal without any costs. It was the generosity of the University of Twente that has enabled us to make a start with this journal: the funding that was made available to publish this journal – which is at the heart of the 'high tech, human touch' profile of the University of Twente – made it possible for us to ask Michelle de Boer to be our first managing editor. Michelle has prepared everything that was needed to start publishing this journal, ranging from the back-end of the journal website to the indexing of the journal and from the organization of meetings of the associate editors to developing a system to manage all submissions and get them through the review process.

Ultimately, it was TU Delft OPEN Publishing – the Diamond open access university publisher of Delft University of Technology – that provided us with the technical infrastructure and professional support to publish this journal. We are very grateful to both the Univeristy of Twente and Delft University of Technology that they have made it possible to publish this journal. A journal that welcomes high-quality submissions from all disciplines relevant to study human-technology relations, regardless of the approach or school of thought from which they originate. The composition of the board of associate editors and the editorial advisory board reflects the variety of approaches from which we aim to investigate human-technology relations.

The timing of launching JHTR in 2022-23 coincided with the disruptive introduction of user-friendly Generative AI technologies, such as ChatGPT, and lends the journal additional urgency of having a platform to reflect on the dynamic nature of human-technology relations. Even though people develop technologies with certain values in mind, the introduction of these technologies into society often helps to review our original intuitions and values that guide our daily activities. ChatGPT, in taking society by storm this year, mirrors the dynamic nature of human-technology-world relations and the values that both originate in these relations and also help to guide them. It confronted the academic community with the need to review what the value of academic integrity means, and why we find it more important than ever in the age of generative artificial intelligence. In the editorial board of JHTR, we had critical discussions on how to properly address this technological development, not shying away from it completely on the one hand, by opening a space for creative human-technology collaboration to happen, but, on the other, doing it in a way that upholds rigorous academic quality standards and that reminds the authors that it is still humans who are responsible and accountable for their work. As a result, we developed guidelines on the use of AI in JHTR (see the 'About the Journal' page, under 'Use of AI'), where we explain why the journal allows listing only humans as authors and requires prospective contributors to explain whether and how they use AI in the work on their academic pieces.

2 AN OVERVEIW OF 2023 ISSUE

This first issue could not have reflected the ambitions and scope of this journal better: all articles take technological developments as a starting point for theoretical analysis and organize a dialogue between technology and theory.

In "The Work of Art in the Age of AI Image Generation: Aesthetics and Human-Technology Relations as Process and Performance," Mark Coeckelbergh (2023) challenges the existing definitions of "art" and what it means being an artist in the age of Generative AI. He proposes a relational performance lens to enrich the current debate and showcase human-technology relations inherent to the process of making art. The author draws on the fields of aesthetics and philosophy of art to suggest that the products of machine-generated process can in principle be considered art if a specific product of this process, e.g. an AI-generated image, can be attributed aesthetic qualities and/or is recognized by the wider art community as art. Coeckelberg then suggests that regardless of this, there is still debate. By introducing a lens of technoperformances, pointing to the dynamic relation between people and technologies, Coeckelbergh suggests that "[h]umans and AI are connected in the human-technology relation, and that relation is not a static one but a dynamic, changing one in which there is a genesis and emergence of subjects and objects, artists and art works through process and (co-)performance" (2023, p. 9). On this view, the artistic creation process can be viewed as a collaborative, sequential series of performances involving both humans and non-humans, resulting in the emergence of new artistic subjects, objects, and roles, where humans and AI are co-performers and the image generated is the outcome of their collaboration. The lens offered by Coeckelbergh allows to move beyond the reductionist approaches to image generation, centered on the role of humans, and allows a nuanced inclusion of technology in the making of art and artists.

In "Selfie and world: On Instagrammable places and technologies for capturing them," Tea Lobo (2023) philosophically problematizes the global trend to offer picture-friendly, aesthetically pleasing "Instagrammable" places that would fit well in the social media platform of Instagram. Lobo describes how individual people and businesses go to great lengths to make specific locations look attractive for this social media platform, even though only a small fraction of these people would benefit from this financially. This context frames Lobo's philosophic inquiry, where she uses a lens of postphenomenology to suggest that Instagram actively participates in

the hermeneutic meaning-making practices of people and in return, flattens the world to fit the exigencies and affordances of the platform. Lobo shows how the Instagrammable background is not a neutral backdrop for the users, but that it also co-shapes them as specific kind of users: daring, adventurous or conventional. This also gets to co-create the location as a specific kind of travel destination, not to be missed by daring, adventurous or conventional travelers. This is where Lobo sees Instagram as mediating not just the hermeneutic but also the alterity relations between people and the world, as people take pictures to engage with the world in a specific way, as specific kinds of travelers. The author suggests that ultimately, Instagram's market-driven approach contributes to the uniformity of aesthetics and promotes reliance on pre-existing interpretations and narratives, which together restrict the mediating potential of technology to facilitate a deeper understanding of one's role in the world and of the world itself.

In her paper 'A historical and ethical analysis of the constitutive effects of cameras', Rosalie Waelen (2023) discusses the societal role of cameras from the perspective of critical theory. The profound impact of cameras on human beings and society has had important implications for societal institutions, bringing new definitions of 'evidence', new possibilities of surveillance, new social relations. The lessons we can learn from the power relations that cameras have brought in the past need to be taken into account today and in a future in which machine vision, automated surveillance, emotion and face recognition will increasingly help to shape the power of institutions. In order to draw these lessons, Wahlen's paper investigates what autonomy and emancipation can mean in relation to new camera technologies.

Tyler Reigeluth's article 'Play It Again' (2023) develops a genealogy of machine learning. The article elaborates two 'contrasting normative regimes', as the author calls it: play and automation. The regimes differ primarily in terms of human-technology relations: the regime of automation approaches machines as autonomous devices that are ideally working by themselves, thus having the potential to replace human beings. The regime of play, to the contrary, approaches machines in terms of interaction rather than autonomy. Machine learning, from this perspective, involves forms of engagement that always have unpredictable outcomes. Drawing on the work of Simondon, Reigeluth argues that the regime of 'play' opens a new approach to interactions with machine learning systems, beyond the idea that these systems are simpy carrying out human instructions. Play involves a mutual learning process of the 'player' and the machine, and therefore it opens up a new approach to human-technology relations and the evaluation of their quality.

Marc Cheong in "Existentialism on Social Media: The 'Look' of the 'Crowd'" (2023) problematizes the ideas of autonomy and identity in the age of social media through the prism of existentialism. The cornerstone of the analysis lies in exploring the scaled and asymmetric networks of social media that Cheong designates as existentially harmful. The author compares social media with the historical development of mass media and builds on the existential philosophy of Kierkegaard to show how social media algorithms multiply and transform the phenomenological Other, bringing rippling effects to interpersonal relationships online. Here Cheong showcases the irony of the promise of authenticity that social media promotes by drawing on the idea of genuine self-expression in existentialism. To mitigate these concerns, the author suggests exploring an idea of parasocial relations that, as he suggests, is best positioned to explore the transitory and illusionary relations of people with online others. Cheong offers to further explore the use of an existentialist lens in navigating technologically mediated relations on social media as the one well-positioned to explore the transformative effects of social media on public interaction and individual identities.

The last of the research papers in this volume introduces a new format of research papers that is not predominantly focused on text - a pictorial research article. Maarten Smith, Sander van der Zwan, Ludger van Dijk, Jelle Bruineberg and Caroline Hummels in "Sketching theory:

Introducing the pictorial format," present a vision of how to do research through design methods, art and other not primarily text-based means. Pictorials as the visual-based research paper highlight the intrinsic connection between the material and embodied nature of research and its final product, e.g. an article. They do so by bringing to the fore the important role of visual and embodied elements in design and art that are constitutive to research, e.g. diagrams, sketches, illustrations, photographs, and gifs. But the role of these visual elements is not merely supportive of text but rather, the goal is to show how the visuals and the text intermingle to produce joint meaning that cannot be reduced to the single research medium. The authors designate several characteristic features that make a pictorial research paper successful. Firstly, the visuals and the text in the paper need to enhance each other and foster meaning creation that resists being tied to one medium alone. The authors present several examples in the paper to suggest that visuals can even be standalone arguments, accompanied by textual interpretations of inquiries in them (see Figure 7 below from Smith et al., 2023, p. 6).

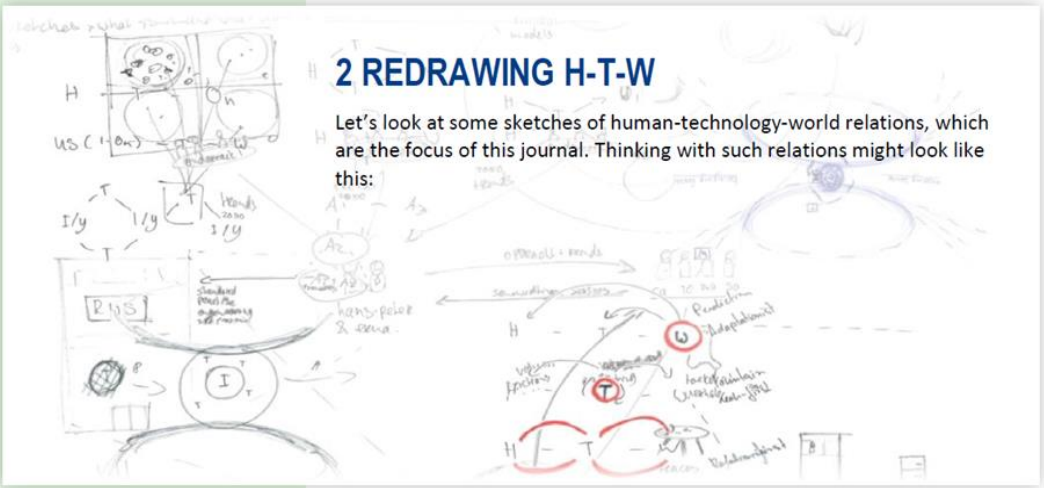

Figure 7: Sketches we used to find common understanding in our team of designers and philosophers

Secondly, a good pictorial documents the creative process in a way that takes the reader along the research journey not only by the means of text and shows different transformations along the development of the argument. Visual methods are apt in showcasing how new understandings emerge through multiple iterations and changes, giving a researcher complex modalities of meaning to explore. Finally, successful pictorials enable an interdisciplinary dialogue that can produce new arguments and methods and a collaboration of diverse research practices. The authors highlight that the pictorial standards are still in development and present their pilot work as an entry point for other researchers willing to explore this format to augment and enhance it. As the editors, we are very happy about the introduction of pictorials as a new research format in the Journal of Human-Technology Relations and would like to invite researchers from a range of disciplinary backgrounds to try this new way of thinking and doing research through a combination of visuals and text.

In JHTR, we are also featuring student essays, a category of academic work done by students under the mentorship and review of at least two associate editors and members of the chief editorial team. In this first issue, we publish an essay by John Walker, Luuk Stellinga and Catharina M. van Leersum, titled "eBird, Expertise, & the Technological Mediation Of Citizen Science" (2023). In this paper, the authors problematize the role of technologies in citizen science, focusing on the case study of a birding application eBird that helps to people to document and guide their bird observation experiences. With an example of the eBird app, the

authors show how technology is not just a neutral tool allowing people to view birds but also helps the users to make sense of the birding practice in specific ways and represent it with the technological framings in action. The app has half a million active users across the globe, who meticulously document their bird sightings that researchers can then use for their ornithological work. The authors argue that science enthusiasts and volunteers should be included in the models of citizen science not only in the role of data collectors, which is predominantly the current state of affairs. Walker and colleagues argue that everyday citizens should also be included in the interpretation of data as they add the diversity of viewpoints and can help to reframe the problems, as well as represent the technologically mediated birding practices in new ways, contributing to the ornithological research.

In this issue, we also had two current affairs papers that each describe a pertinent problem of the day in relation to people and technologies. Lars Botin in "Some Thoughts on the Concept of the Techno-Anthropocene" (2023) takes issue with the currently predominant anthropocentric interpretation of the world, centred around human control of and influence on the natural and material environment. Designating this as human arrogance, the author advocates for a distinct and more inclusive approach that would integrate the role of technologies as an integral part of experiencing and representing the world. Botin calls this account the Techno-Anthropocene and begins sketching it out, building on (post)phenomenological thinkers such as Heidegger, Merleau-Ponty, Deleuze and Guattari, and Verbeek. According to Botin, the concept of Techno-Anthropocene is essential to highlight the existential intertwinement of people and technologies, our "techno-terrestrial condition" (2023, p. 5) of living with technologies.

In their current affairs paper, Anuj Puri and Esther Keymolen talk "Of ChatGPT and Trustworthy AI" (2023). In a carefully speculative research exercise, they "interview" the tool to showcase the different aspects of trustworthiness that need to be considered in AI practices. Firstly, the authors highlight the need to consider both the users' values and the broader range of ethical concerns. Secondly, they emphasize two different aspects of trust with regard to ChatGPT: trust in it as a computer agent with an interface, promoting specific interaction patterns and perception of intelligence, and trust in the information it generates. On the first account, drawing on Hawley, the authors suggest that ChatGPT exhibits "trust-enhancing indicators" (2023, p. 3) because it suggests not to be trusted in the same manner one would a person and because interactions with ChatGPT suggest that it is instructed to provide accurate information to the best of its knowledge base. On the second account of trusting the generated information, Puri and Keymolen are sceptical about the large responsibilities placed on individual users concerning the verification duties and also about a misleading suggestion that ChatGPT merely relates the data, obscuring the non-neutral computational and corporate choices in the collection, interpretations and representation of the information to the end users. Ultimately, the authors argue that the trustworthiness of AI systems, such as ChatGPT, depends on the ability to integrate critical ethical perspectives, something that the authors suggest ChatGPT currently lacks.

To conclude the first issue, we also invite you to read the featured review pieces: Dina Babuskina's paper "Power, knowledge, and AI in political decision-making" (2023) reviewing the book by Mark Coeckelbergh "The Political Philosophy of AI"(2022), the review by Francisca Grommé, Adriaan Odendaal and Jannes ten Berge (2023) of Kate Darling's "The New Breed: How to Think About Robots" (2021), and Elisa Paiusco and Federico Boem's exhibition review "A philosophical outing to Dutch Design Week" (2023).

We sincerely hope you will enjoy reading the first issue of the Journal of Human-Technology Relations and consider submitting your own work in the future.

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Olya Kudina and Peter-Paul Verbeek are equal contributors to this article.

References

Babushkina, D. (2023). Power, Knowledge, and AI in Political Decision-Making: Review of Coeckelbergh, M (2022). The Political Philosophy of AI. Journal of Human-Technology Relations, 1(1), pp.1-4. https://doi.org/10.59490/jhtr.2023.1.7017.

Boem, F., & Paiusco, E. (2023). A philosophical outing to Dutch Design Week. Journal of Human-Technology Relations, 1(1), pp.1-4. https://doi.org/10.59490/jhtr.2023.1.7029.

Botin, L. (2023). Some thoughts on the concept of the techno-anthropocene. Journal of Human-Technology Relations, 1(1), pp.1-5. https://doi.org/10.59490/jhtr.2023.1.7021.

Cheong, M. (2023). Existentialism on Social Media: The 'Look' of the 'Crowd'. Journal of Human-Technology Relations, 1(1), pp.1-16. https://doi.org/10.59490/jhtr.2023.1.7022.

Coeckelbergh, M. (2022). The Political Philosophy of AI. Cambridge: Polity Press.

Coeckelbergh, M. (2023). The Work of Art in the Age of AI Image Generation: Aesthetics and Human-Technology Relations as Process and Performance. Journal of Human-Technology Relations, 1(1), pp.1-13. https://doi.org/10.59490/jhtr.2023.1.7025.

Darling, K. (2021). The New Breed: What Our History with Animals Reveals about Our Future with Robots. Henry Holt and Co.

Grommé, F., Odendaal, A., & Ten Berge, J. (2023). The New Breed: How to Re-Imagine Living with Robots. Journal of Human-Technology Relations, 1(1), pp.1-6. https://doi.org/10.59490/jhtr.2023.1.7023.

Lobo, T. (2023). Selfie and world: On Instagrammable places and technologies for capturing them. Journal of Human-Technology Relations, 1(1), pp.1-11. https://doi.org/10.59490/jhtr.2023.1.7011.

Puri, A. and Keymolen, E. (2023). Of ChatGPT and trustworthy AI. Journal of Human-Technology Relations, 1(1), pp.1-10. https://doi.org/10.59490/jhtr.2023.1.7028.

Reigeluth, T. (2023). Play it again: a genealogy of machine learning. Journal of Human-Technology Relations, 1(1), pp.1-19. https://doi.org/10.59490/jhtr.2023.1.7015.

Smith, M. L., Zwan, S., van Dijk, L., Bruineberg, J. P., & Hummels, C. C. M. (2023). Sketching theory: Introducing the pictorial format. Journal of Human-Technology Relations, 1(1), pp.1-10. https://doi.org/10.59490/jhtr.2023.1.7026.

Waelen, R. A. (2023). A historical and ethical analysis of the constitutive effects of cameras. Journal of Human-Technology Relations,1(1), pp.1-11. https://doi.org/10.59490/jhtr.2023.1.7006.

Walker, J., Stellinga, L. & van Leersum, C.M. (2023). eBird, Expertise, & the Technological Mediation Of Citizen Science. Journal of Human-Technology Relations, 1(1), pp. 1-12. https://doi.org/10.59490/jhtr.2023.1.7016.