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Bridge Over Troubled Water: Aligning Commercial Incentives With Ethical Design Practice To Combat Deceptive Patterns / Eßmeyer, T., Gunawan, J., Gray, C.M., Sánchez Chamorro, L., Monge Roffarello, A., Seaborn, K., Sandhaus, H., Lukoff, K., Savino, G., Chivukula, S.S., Nakamura, S.. - STAMPA. - (2026), pp. 1-8. (CHI '26: CHI Conference on Human Factors in Computing Systems Barcelona (ESP) 13–17 April, 2026) [10.1145/3772363.3778758].

*Availability:*

This version is available at: 11583/3010044 since: 2026-04-17T13:18:52Z

*Publisher:*

Association for Computing Machinery

*Published*

DOI:10.1145/3772363.3778758

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# Bridge Over Troubled Water: Aligning Commercial Incentives With Ethical Design Practice To Combat Deceptive Patterns

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## Abstract

Over the past decade, awareness of unethical design practices has risen within and outside the field of human-computer interaction (HCI). Often referred to as deceptive design or dark patterns, associated practices coerce, obstruct, or manipulate user choices in various online contexts. As regulations aiming to protect users from especially malicious practices increase globally and customer-service relationships suffer, we identify a need to bring together practitioners with scholars in a transdisciplinary context to work together on sensible solutions that benefit both users and service providers. Our key aims are: (1) identifying gaps between user expectations and commercial incentives; (2) assessing contemporary design practices; and (3) rerouting user journeys to enable informed decision-making. Through roundtable discussions and collaborative activities, this workshop will foster the relationship between practitioners and scholars and help align ethical design principles with current practice, reflecting both user and service provider needs.

## Keywords

dark patterns, deceptive design, manipulative user interfaces, design ethics, responsible design

### ACM Reference Format:

Thomas Eßmeyer, Johanna Gunawan, Colin M. Gray, Lorena Sánchez Chamorro, Alberto Monge Roffarello, Katie Seaborn, Hauke Sandhaus, Kai Lukoff, Gian-Luca Savino, Shruthi Sai Chivukula, and Satoshi Nakamura. 2026. Bridge Over Troubled Water: Aligning Commercial Incentives With Ethical Design Practice To Combat Deceptive Patterns. In *Extended Abstracts of the 2026 CHI Conference on Human Factors in Computing Systems (CHI EA '26)*, April 13–17, 2026, Barcelona, Spain. ACM, New York, NY, USA, 8 pages. <https://doi.org/10.1145/3772363.3778758>

## 1 Introduction

In the past 15 years, interest in harmful user interface (UI) design practices—often referred to as deceptive design or dark patterns (DPs)<sup>1</sup>, as well as other terms like manipulative UI [69] and disloyal patterns [31]—has surged within and beyond the field of human-computer interaction (HCI), heralding in a growing body of research and transdisciplinary connections to other areas of study, like psychology and legal studies, as well as areas of practice, notably law and regulation. Although the community may be divided on the terms and underlying theories used to describe and explain these harmful design practices [8], two core goals unite us: (1) reveal

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*CHI EA '26, Barcelona, Spain*

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ACM ISBN 979-8-4007-2281-3/26/04

<https://doi.org/10.1145/3772363.3778758>

<sup>1</sup>We acknowledge that the term “dark pattern” is negatively connotated and listed on the ACM’s Words Matter [2] website, linking “dark” to “bad” or “evil.” As an alternative, the term “deceptive design (pattern)” has been used among scholars, but the community is still at odds about a single term. To keep the connection to past work while reflecting this ongoing discourse, we decided to use an ambiguous acronym “DP.”

design patterns that force or misguide users into undesired interactions that they might later regret and (2) enable countermeasures, especially regulatory action, that protect users. The impact of related scholarly work is reflected by policies and regulations that have been put into action across the globe: The EU's DSA [17], the UK's DMCC [82], the USA's CCPA/CPRA in California [6] and the Colorado Privacy Act [15], and India's CCPA [58]. Meanwhile, various governing bodies have laid out further guidelines for practitioners that include, but are not limited to, the EU's EDPB [4], a report by the OECD [63], or the UK's CMA [1], promoting design that maintains user agency and autonomy. These efforts highlight the overall relevance of the topic. However, reports are clear on the continued widespread use of DPs in online services. Mirroring the growing list of regulatory actions, this is a global problem, as clarified by last year's Special Interest Group (SIG) [75], with research on prevalence and new initiatives expanding to nations like Brazil [67], Korea [38], India [77], and Japan [35].

Following up on recent and rapidly growing interest within the CHI community, including two very successful workshops [22, 43] and two equally forward-pushing SIGs [29, 75], we argue that it is time to build bridges between stakeholders and develop realistic and actionable design frameworks that align users' best interests with commercial incentives, pursuing ideal conditions for both sides. The CHI community offers a unique opportunity, as it attracts both leading researchers in HCI and renowned industry counterparts, presenting an ideal pool for collective innovation. This workshop invites participation from both groups, offering a round table to work on feasible solutions addressing DPs in the digital age.

## 2 Motivation & Goals

In a time of growth-hacking and maximising revenue [87], often at the cost of users, we acknowledge the need for legal frameworks that protect users, especially when evidence shows that they are not sufficiently equipped to protect themselves. We also see a need to work closer together with industry professionals to move forward and align commercial incentives with users' needs, following core human-centred values. Importantly, we acknowledge existing tensions between practitioners as individuals and their organisational goals [14], often limiting the scope within which they afford their users' needs. Adding to this issue, HCI-related terminologies, e.g. usability and user experience, have been interpreted to offer users avenues to achieve certain aims as quickly as possible, while others are discouraged [18]. This leads to user interfaces (UIs) affording certain choices over others, resulting in limited time for reflection and informed decision-making [50, 55] or the obstruction of specific goals, like account deletion [26, 37, 74].

Design, by nature, persuades users to perceive its functionalities. Traditionally done via affordances, signifiers, feedback, or constraints, the level and vigour at which this persuasion should take place is not always clear and often subject to case-by-case requirements. The surrounding discourse has thoroughly discussed the implications of emerging nudges [34] that influence user choice architecture [80], with frameworks established to better understand underlying mechanisms [7] and promotions for responsible use of design strategies [34, 41, 83]. Notably, walking the line between guiding users to achieve their goals and coercing them to

take regretful actions is a challenging task, especially as online services become more complex. Yet, voices from industry argue that persuasive design principles merely help users towards successful interactions [78]. Whose success—the user or the service—is targeted remains unclear.

Unfortunately, this effect is enhanced through organisational factors that govern over design processes. A study by Gray and Chivukula [20] on ethical design complexity follows the impact external pressures have on practitioners' ability to create ethical, human-centred designs that are in line with their individual values. Similarly, Chivukula et al. [11] describe different identity claims of practitioners, further illustrating this tension. Adding to the inability of creating value-centred design, some practitioners state that best practices or guidelines are not readily available to them [51].

Despite the ongoing deployment of DPs, multiple studies show negative implications for services that rely on them: Luguri and Strahilevitz [42] highlight rising frustration among users leading to decreasing satisfaction with services, which is supported by Voigt et al. [84], who also spotlight decreased brand trust. Bongard-Blanchy et al. [5] demonstrate a general awareness and concerns among users of DPs, while Mildner and Savino [54] notice an incongruence between users' expressed satisfaction with social media and their usage behaviour. Collectively, these studies make a strong case that users are unhappy with services deploying DPs, countering certain industry stances with empirical support. This divided view outlines a deep gap between researchers' and practitioners' perspectives. With research and regulatory angles shaped to protect users, it is now time to connect with industry partners and follow human-centred incentives to enable happy users and successful services. To foster joint efforts with a focus on human-centred values, this **long (two-sessions) workshop** will bring together all relevant stakeholders to collaborate on realistic, actionable countermeasures and design alternatives to DPs. Our key aims are:

- (1) **Identifying gaps and alignment between user expectations and commercial incentives:** Research on DPs has landscaped user perspectives from qualitative and quantitative perspectives, while work with practitioners has revealed ethical tensions between individuals and organisational goals. In the case of market competition, however, user goals and commercial parties may align against more powerful organisations. Building on this knowledge, we will outline implications for design that address both the users' and the service providers' needs.
- (2) **Assess Contemporary Design Practices:** While some practices always lead to harmful or problematic interactions, others are more context-dependent and require more sensitivity to weigh potential impacts on user agency and profit; and which are generally unproblematic, unless they link temporally to harmful practices.
- (3) **Rerouting user journeys to enable informed decision-making:** After understanding gaps and constraints, we will build bridges following value-sensitive and ethical design principles. Through collaborative exercises we will develop responsible and fair design alternatives that benefit both user and service provider incentives.

### 3 Organisers

This workshop is facilitated by organisers with multiple years of researching (un)ethical design and deceptive practices in a range of contexts, including design (e.g. [26, 39, 44, 62, 71, 81]), computer science (e.g. [52, 56]), education (e.g. [11, 14, 20]), and policy (e.g. [21, 28, 30]), resulting in impactful publications in their respective fields. Also, we have collectively organised a series of successful workshops, symposia, or SIGs on DPs (e.g. [22, 29, 43, 75]), EduCHI (e.g. [12, 24]), and in the context of conversational user interfaces (e.g. [3, 16, 86]). The organising team includes both researchers and industry professionals at early to senior career stages. **Thomas Eßmeyer** will serve as Lead Facilitator; **Johanna Gunawan** and **Colin M. Gray** will be our on-site Co-Facilitators; **Katie Seaborn** and **Hauke Sandhaus** will setup our online presence as Web Chairs; **Lorena Sánchez** and **Alberto Monge Roffarello** will be our Publications Chairs; **Kai Lukoff** and **Gian-Luca Savino** will serve as Engagement Chairs helping with outreach tasks; and, last but not least, **Shruthi Sai Chivukula** and **Satoshi Nakamura** will serve as Communication Chairs.

- **Thomas Eßmeyer** is a Postdoc researcher at the University of Bremen and coordinates a research cluster at the Leibniz ScienceCampus Digital Public Health. His work includes collaborative work on an ontology for DPs [30], investigations of problematic interactions on social media platforms [53, 55], and effects of the temporal aspects of DPs [25, 56]. Thomas will serve as the **Lead Facilitator** of the workshop.
- **Johanna Gunawan** is an Assistant Professor of Computer Science and Law at Maastricht University, where she conducts research at the intersection of HCI, cybersecurity, and law. Her DPs scholarship contributes contextualised understandings of DPs *in situ* and across multiple modalities of use [32, 40, 64, 65], as well as conceptual framings bridging computer science and legal disciplines [31] and investigations into the potential for consumer recourse [33]. She will serve as an **on-site Co-Facilitator** for the workshop.
- **Colin M. Gray** is an Associate Professor at Indiana University, where they serve as program director for a graduate program in HCI/d. Their research has contributed foundational knowledge on DPs [23], including a unified ontology [30]; connections between design, law, and HCI [28]; and articulation of challenges in supporting ethical design practices [20, 27]. They will serve as an **on-site Co-Facilitator** for the workshop.
- **Katie Seaborn** is an incoming Associate Professor at the University of Cambridge and current National University Associate Professor at Institute of Science Tokyo (formally Tokyo Institute of Technology). They critically explore DPs under the theme *Interactions in the Negaverse*, which covers how technology exploits, affords, or even celebrates negative experiences. They have carried out fundamental work in Japan, finding new patterns in Japanese apps [35] and, in collaboration with Japanese public broadcaster NHK, conducting the first user study on these patterns [76]. In 2024, they were awarded a prestigious JST PRESTO grant to exclusively research DPs. Katie will serve as a **Web Chair**.
- **Hauke Sandhaus** is a PhD candidate at Cornell Tech researching how external influences shape ethical technology design. His work examines tensions between commercial incentives and responsible design practices, including barriers to safety-critical data sharing in autonomous vehicles [73], GenAI's influence on technology design education [72], and privacy implications of large-scale datasets [19]. He introduced "bright patterns" as autonomy-supporting alternatives to DPs [71] and developed frameworks for quantifying ethical UX [66]. Hauke will serve as a **Web Chair**.
- **Lorena Sánchez** is a Postdoctoral Researcher at the University of Twente. Her work includes the understanding of designer's tensions to avoid the implementation of manipulative designs [78]. Her research focuses on the intersection of manipulative designs and users vulnerability [70, 79], aiming to create multidisciplinary solutions to tackle vulnerability towards manipulative designs [68]. She will serve as a **Publications Chair**.
- **Alberto Monge Roffarello** is an Assistant Professor at Politecnico di Torino, Italy, where he conducts research in the digital wellbeing domain. His work has advanced understanding of attention-capture design patterns [62], strategies for digital self-control [59, 60], and frameworks to guide ethical and wellbeing-oriented design [61]. He will serve as the a **Publications Chair** for the workshop.
- **Kai Lukoff** is an Assistant Professor of Computer Science and Engineering at Santa Clara University. His research explores what makes technology use meaningful for users [46], identifies and evaluates design mechanisms that support user agency [44, 45, 49], and investigates digital self-control tools in the context of digital wellbeing [47, 48]. Kai will serve as an **Engagement Chair** for the workshop.
- **Gian-Luca Savino** is a Senior Researcher and Speaker at the Gottlieb Duttweiler Institute, where he analyzes global technology trends and their effects on business, the economy, and society. Previously, he was a postdoctoral researcher in HCI at the University of St. Gallen, focusing on mobile user behavior and DPs research across social networking platforms [53, 55] and health applications [57]. He will serve as an **Engagement Chair**.
- **Sai Shruthi Chivukula** is an Assistant Professor at Pratt Institute, New York. Her research work investigates how designers and HCI practitioners navigate ethical decision-making in real-world, ecologically mediated contexts, using critical qualitative and design research methods. She translates these insights into practical and open-access ethics-focused methods and pedagogical tools [12, 13] that support ethical awareness, reflection, and action in design education and practice. Shruthi will serve as a **Communication Chair**.
- **Satoshi Nakamura** is a Professor at Meiji University in Japan. He is interested in how user selection in choice-based interfaces can be influenced, potentially as DPs. His research focuses on how interface elements, such as pop-out effects, font styles, position, device type, and progress bars, can affect user selections [36, 39, 81, 85]. He will serve as the **Communication Chair** for the workshop.

## 4 Workshop Activities and Structure

This workshop will be structured around **two 90-minute sessions with the goal to engage 30–40 participants**. During the first session, participants will have the opportunity to present their position papers, which can be work-in-progress and preliminary results or reflective essays that encourage thought-provoking discussions. In the second, we will engage in practical and collaborative activities, bringing together scholars with industry professionals to jointly work on responsible and fair design alternatives. While the workshop will be in person only, we will enable asynchronous pre- and post-workshop events to foster this community and enable continuous discourse and networking. To this end, we will utilise an existing Slack workspace<sup>2</sup> that contains a flourishing community. We will further use Google Docs alongside our activities to document the workshop's progress. Combined, these platforms will help preserve our participants' contributions in an accessible way that allows further, asynchronous collaborations.

### 4.1 Plans to Publish Workshop Proceedings

We intend to publish accepted position papers, and will archive these papers via CEUR-WS workshop proceedings and on our website. Position papers represent one method of attendance; participants may submit non-archival statements of interest to attend, but these will not be published. More detail regarding workshop submissions is presented in [autorefsubsec:before-workshop](#). Our call-for-participation is presented in section 6.

### 4.2 Ensuring Inclusivity & Accessibility

We are committed to creating an inclusive and accessible workshop for all participants<sup>3</sup>. Although submissions will be published via CEUR-WS, we strongly encourage participants to follow SIGCHI's "Accessible Guide for Authors"<sup>4</sup>. We will choose participants based on their submissions' quality while striving for a diverse group to ensure an inclusive environment (detailed in section 4). Also, we will reach out to participants and ensure accessibility needs are met.

### 4.3 Offline Materials

PDFs of the proceedings and documentations during the workshop via Google Docs will be made available to participants before and after the workshop in the event that they are unable to attend. We will also circulate (with consent) all accepted participants' contact information via Slack or other communication methods to allow for asynchronous networking and community building.

### 4.4 Before the Workshop

To advertise the workshop, we will broadcast our call for participation via different HCI mailing lists, social media channels, and direct invitations. In addition, we will set a clear focus to reach practitioners via personal networks and by directly reaching out to CHI's sponsors, supported by our **Engagement Chairs**. Further, a Slack workspace with over 200 members, that emerged after a 2021 workshop on DPs [43] and includes scholars and professionals

<sup>2</sup><https://darkpatternsresearch.slack.com>

<sup>3</sup><https://chi2025.acm.org/accessibility-faq/>

<sup>4</sup><https://sigchi.org/resources/guides-for-authors/accessibility/>

with diverse backgrounds, allows us to reach potentially interested participants within the community. Finally, we will review accepted papers at CHI 2026 and directly mail authors of related publications. Our goal is to engage between 30–40 participants, balancing scholars from HCI, CS, and privacy as well as industry professionals including developers, designers, and executives as much as possible. Overall, our aim is to offer an inclusive space that enables multi-faceted discussions, where perspectives on design processes are equally valued. Entering the workshop is possible by either (1) submitting a **position paper**, allowing scholars and other stakeholders already part of this community to share detailed findings and perspectives, or, lowering the entry-barrier, (2) via a brief **statement of interest**.

**Attending via Position Paper:** Applicants are invited to submit position papers of 5–9 pages (excluding references) following the CEURART style template<sup>5</sup>. These can describe work-in-progress or preliminary findings of ongoing studies related to the workshop focus. For example, they can follow user behaviour in digital contexts to highlight the impact design elements have on decision-making, both enabling reflection and better choices as well as restricting selection of available options. We also encourage ethically motivated position papers that highlight problems for specific and vulnerable user groups as well as empowering design that presents bridges in line with our aims. We will accept position papers, and thus participation to this workshop, based on the quality and relevance of submissions. Depending on the total number of submissions, we will prioritise diverse and transdisciplinary perspectives, as well as geographic regions. All submissions will enter a structured review process organised by our **Publications Chairs**, where submissions will be independently reviewed by two organisers. All accepted position papers will be published on our website and archived via CEUR-WS workshop proceedings.

**Attending via Statement of Interest:** As we want to encourage diverse participation through a lower entry barrier, interested applicants will also be able to attend by statement of interest. This can be a general motivation supported by a background related to our topic between 1–2 pages. For instance, applicants can outline their curiosity in deceptive patterns, ambitions to design responsibly, and share their aims for attending the workshop. We hope that that this option allows more early career researchers as well as attendees from different fields to consider and partake in this workshop. Similar to the selection of applicants via position paper, we will prioritise attendees with a broad and diverse background following the same criteria, for an inclusive community-building. Participants attending via a statement of interest will not present during the presentations' session but, of course, take part in the lightning introductions.

### 4.5 Main Workshop

Table 1 offers an overview of the general workshop structure, following two 90-minute sessions. The first session will begin with a brief introduction by the lead facilitator and fellow organisers into

<sup>5</sup>The template can be accessed here: <https://ceur-ws.org/HOWTOSUBMIT.html#CEURART>

**Table 1: Workshop schedule. Times are tentative and are subject to change depending in CHI 2026 programme scheduling.**

| Time    | Activity                                   | Description   |
|---------|--|---|
| 2:00 pm | Welcome                                    | Introducing organisers and presenting workshop structure.   |
| 2:15 pm | Session 1a: Lightning Introductions        | Participants briefly introduce themselves, their current occupation, and aims for this workshop.  |
| 2:40 pm | Session 1b: Identifying Gaps and Alignment | Authors of position papers are encouraged to present their work within 3–5 minutes each, followed by brief Q&A sessions. If multiple participants authored the same position paper, one person will present on their behalf. This session serves to achieve our first aim.                                    |
| 3:30 pm | <i>Coffee break</i>                        |   |
| 4:00 pm | Session 2a: Assessing Problematic Design   | Within transdisciplinary groups, participants will discuss different user interactions through ethical tension tools. After 30 minutes, the groups will report their findings. This sessions will accomplish our second aim.  |
| 4:40 pm | Session 2b: Rerouting User Journeys        | In the same transdisciplinary groups, participants will engage in a co-deisgn activity to redesign existing user journeys to empower reflected decision-making, enabling users to achieve their goals by following ethical and responsible design principles. This final sessions will fulfill our third aim. |
| 5:20 pm | Closing remarks                            | The lead facilitator and co-organisers will revisit the workshops' key objectives and summarise main outcomes before closing the workshop.  |

the topic, the state-of-the-art, and current tensions. Afterwards, we will have lightning introductions of all participants. The next 50 minutes will then serve to achieve or first aim in indentifying gaps between users' expectations and commercial incentives through presentations of position papers accompanied by a Q&A. Each position paper will be presented by one author within 3–5 minutes followed by 1–2 questions. Prior to the workshop, the workshop organisers will sort the accepted position papers by topics that outline identified gaps.

After a coffee break, which can be used to follow up on individual discussions and networking, the second half begins with a first collaborative activity. To this end, we will create sensible transdisciplinary groups between participants, which we will do prior to the workshop. Each group will then be assigned a pre-selected and common deceptive, coercive, or otherwise problematic design pattern that occurs in frequent user interactions. Using the "Tracing the Complexity" by Shruthi Sai Chivukula [9, 10] participants will discuss and reflect further on possible gaps between user interest and commercial incentives while assessing what makes the design problematic and what might be dependent on the situation or harmless. After 30 minutes, each group will share their key findings with the entire workshop which we will record with analogue (flipcharts etc.) as well as digital media (Google Docs).

Afterwards and in the same transdisciplinary groups, the final session includes a co-design excersise where each group will re-design existing user journeys that have been identified as problematic, obstructing informed-decision making. Building on the previous discussions, participants will re-design these user journeys with users' agency in mind while balancing the needs of the service provider. Again, after 30 minutes, groups will present their findings to all workshop attendees, reflecting on the challenges they noticed and sharing their solutions to overcome them. In the final part of the workshop, the organisers will summarise key aims and

this workshop's findings before closing the event. We will encourage participants to join existing online communities, and, while not officially part of our scheudle, plan a post-workshop dinner or socialising event in a suitable location in Barcelona for further networking opportunities.

## 5 Post-Workshop Plans & Dissemination

To combat unethical and problematic design, we strongly believe in collaboration between scholars and practitioners. As previous, similar workshops have successfully connected HCI with legal perspectives [22], our aim is to extend this bridge to the industry. Consequently, we will invite every workshop participant to join the growing community at the existing Slack channel, where people discuss ideas, share publications, and collaborate on ongoing projects. While this platform offers a sustainable communication tool where we can continue collaborating and informing each other about ongoing endeavors, we will also share the workshop's proceedings via our website and CEUR-WS, which we will further distribute through social media. Further, we plan to disseminate the key findings of this workshop in a short article written by the organisers in the *Interactions* magazine. This article should present both the existing ethical tensions as well as possible bridges that are the result of collaborative engagement between scholars and practitioners.

## 6 Call for Participation

Users of different digital services grow wary of unethical practices tricking them into regrettable interactions. Whether consent banners that encourage sharing of personal data, obstructions when customisating privacy settings, or during account creation and deletion procedures, the design of systems frequently steers user choices against their best interests. Consequently, the lack of transparency and agency leads to frustration as expectations and trust

in service providers break—a situation where neither users nor services gain (long-term) benefits. Meanwhile, scholars have identified numerous design patterns under this umbrella as regulations and policies restrict especially nefarious practices.

In this workshop, we will focus on this tension through transdisciplinary activities that bring together researchers, legal scholars, and practitioners to build bridges. We aim to identify underlying issues and develop ethical and responsible alternatives for design practices that reflect both user interests and commercial incentives. Applicants can either submit a position paper or a statement of interest. Position papers will be published via our website ([chi2026.darkpatternsresearchandimpact.com](https://chi2026.darkpatternsresearchandimpact.com)) and as CEUR-WS workshop proceedings and should follow the CEURART style (<https://ceur-ws.org/HOWTOSUBMIT.html#CEURART>). All submissions should be sent to: [submissions-chi2026@darkpatternsresearchandimpact.com](mailto:submissions-chi2026@darkpatternsresearchandimpact.com). **At least one author of each position paper must attend the in-person workshop.**

**Call for Position Papers:** Submission should be between 5–9 pages (without references) and present preliminary or work-in-progress findings and thought-provoking essays sharing specific perspectives related to the topic.

**Call for Statements-of-Interest:** Alternatively, applicants may submit brief statements-of-interest of 1–2 pages. Submissions should present a motivation for attending the workshop and an expression of expectations for the workshop.

## Acknowledgments

This workshop is partially supported by the Leibniz ScienceCampus Bremen Digital Public Health, which is jointly funded by the Leibniz Association (W72/2022), the Federal State of Bremen, and the Leibniz Institute for Prevention Research and Epidemiology – BIPS.

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