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REDEFINING DATA BOUNDARIES THROUGH DESIGN.

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In the evolving landscape of technology and design, traditional notions of data are being challenged and reimagined. Data are no longer confined to quantitative measurements but have been actively shaping creative processes, design outcomes and human-non-human interactions. The track Redefining Data Boundaries explored the transformative potential of data which involved recognizing data's agency and its capacity to influence outcomes autonomously. This transition requires a re-examination of our understanding of the roles of technology and humans in the design process. There is an increasing recognition of the emergent agency of digital technologies, rather than perceiving them solely as instruments controlled by humans. This viewpoint considers technology and people as collaborators in a symbiotic relationship, wherein both possess agency that converges in practice.

One aspect of this transformation is the integration of aesthetic computing in design. Using computational methods to simulate human aesthetic decision-making allows designers to enhance creativity and efficiency. Systems that generate visual content based on specific inputs, such as mood boards, demonstrate how data can bridge the gap between quantitative metrics and qualitative experiences. These systems extend designers' creative possibilities by automating tedious tasks, prompting inspiration and extending the scope of ideation. Close to that, in some cases also the materiality data can acquire present a unique balance between numbers and live experiences. When data are embedded into the physical world, this raises the need for ethical

considerations in data representation that span beyond the digital. Thus, in those cases, data are transformed into a tangible experience that challenges the definition of data. Moreover, physicalizing data may facilitate profound relationships between individuals and the information conveyed through reflection. Physical data underscores the capacity of data to foster empathy, contest prevailing perceptions, and enhance informed and compassionate decision-making processes.

In addition, the redefinition of data boundaries necessitates an extensive examination of the interaction between machines and human agency. Understanding that technology can operate independently and affect events requires the development of new frameworks for assessing and designing these interactions. By evaluating the agentic capabilities of technology, designers may foresee future impacts, align human and non-human agency, and develop more equitable and ethical systems. This approach transcends conventional human-centric or techno-centric approaches, promoting a more integrated vision that recognizes the reciprocal nature of humans and technology.

The redefinition of data boundaries highlights the emergent, contextual, and distributed characteristics of agency. Agency is perceived not as a binary characteristic but as a spectrum of dependent phenomena that vary across circumstances. This understanding encourages designers to evaluate the different levels of autonomy and impact that technologies exhibit, and how these attributes might be used or regulated within design methodologies.

Moreover, the increase of data's significance in design and interaction underlines the ethical implications of technology use. As data integration increases and technology acquires greater autonomy, providing transparency, accountability, and responsibility is essential. Designers are required to build systems that are both functional and visually appealing while also contemplating the ethical and societal implications of their work. By adopting innovative frameworks of agency, incorporating aesthetic computing, and promoting empathetic interactions with data, we can create new methodologies that enhance human experiences and tackle intricate difficulties. This redefinition promotes an extensive perspective that values the interaction among humans, technology, and data, hence fostering more considerate, innovative, and ethical actions in the digital era.

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