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## **The Potential of Speculative Design in Public Engagement with Emerging Science and Technology**

Objective: To understand the potential of speculative design to engage the public in moral deliberation about emerging science and technology. Materials and methods: Using a case study, a qualitative research design was followed. Data collection consisted of 81 open conversations during speculative design exhibition 'Reprodutopia' on emerging reproductive technologies. Our forthcoming framework on the potential of speculative design guided analysis. Results: Speculative design made the public (1) question the reality of human-technology relations by using artistic tools such as what-if scenarios, narratives and ambiguity. Participants entered a reflective space in which they challenged philosophical notions and meta-ethical issues. In addition, speculative design inspired the public (2) to craft potential future scenarios. Participants employed archetypes, relied on moral anchors and used the designs' retro futuristic references. Moreover, speculative design (3) facilitated enriched deliberation on techno futures. The designs complimented abstract reasoning by accommodating embodied, emotional, personal and immersive experiences of emerging science and technology. A fourth dimension was added to the framework on the role of the guide as deliberation facilitator by initiating Socratic dialogue and presenting alternative perspectives. Conclusion: In order for speculative design to realise its potential to enrich public engagement with emerging science and technology, the immersive experience should offer participants thought-provoking ideas and perspectives while leaving space for ambiguity and open-endedness to encourage participants' critical and creative thinking.

Key points: • Speculative design enriches deliberation through immersive experiences that create space for dialogue amongst multiple participants on multiple (disciplinary) perspectives • Narrative in the design objects guide deliberation •