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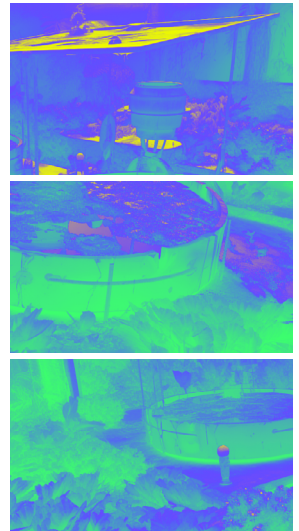
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CO-PREDICTIVE RELATIONS describe the dynamic interplay between algorithmic predictability and human unpredictability.



Co-predictive Relations underscores the complexity of interactions that blend physical and digital phenomena and environments, pointing to the mutual influence human behaviours and algorithmic models have on each other.

Co-predictive relations operate at the interface of virtual (simulated) and physical (actual) worlds. They suggest a productive path between an algorithmic system's intent to predict, and thus fix the identity, behaviour, and potentiality of agents, and the tendency of human actors to behave in complex, spontaneous, or unanticipated ways. Through the perspective opened up by co-predictive relations, the interaction between humans and predictive systems resembles a dance where both influence each other's capacity to imagine and act on the future in ways that express futurity. In turn, this form of co-performance posits the future itself as a co-produced horizon of possibility rather than a predetermined place or destination.

The concept prompts us to reconsider the design and use of predictive models. It encourages thinking beyond conventional applications focused solely on determining future outcomes.

By shifting from prediction (by algorithms) to co-prediction (by humans and algorithms), the impulse to reduce uncertainty is replaced by a more nuanced view of agency. Accordingly, no single agent determines the agential potentials of the other agents, and instead the freedom to shape, manifest, and therefore promote future possibilities is distributed across users, actors, and systems.

○ KEY INSIGHTS

DYNAMIC INTERPLAY

Co-predictive relations emphasise the ongoing interaction and mutual shaping of algorithmic predictability and human unpredictability. They entail making outcomes more dynamic and spontaneous, and thus shape the future as a horizon of possibility rather than a predetermined outcome.

UNCERTAINTY AND UNPREDICTABILITY

Co-predictive relations challenge traditional approaches to prediction by adding a layer of unpredictability. They encourage designers to build contingency into models, embrace instead of hedge against uncertainty, and keep space for surprising, affective, or otherwise »irrational« behaviour.

○ CASE STUDY



Undoing Gracia (2023) is a design experiment by **Grace Turtle** exploring human–AI relationships. It conceptualises predictive AI as a »borderland«, where the self is fluid and the future open. Gracia, a digital twin of Grace’s world, is inhabited by Grace and their generative agents—Lex, Tortugi, and Luna. Over weeks, they interact and evolve, transforming themselves and their world.

○ FURTHER READING

Turtle, G.L. (2022). Mutant in the mirror: Queer becoming with AI, in Lockton, D., Lenzi, S., Hekkert, P., Oak, A., Sádaba, J., Lloyd, P. (eds), *DRS2022: Bilbao*, 25 June–3 July, Bilbao, Spain.

DOI.ORG/10.21606/DRS.2022.782

Turtle, G.L., Bendor, R. & Giaccardi, E. (2024). *Queering AI: Undoing the Self in the Algorithmic Borderlands*

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