Sparring Partners provokes human/machine interaction as a collaborative partnership in the process of constructing realities, through an audiovisual performance: an artificial intelligence plays an improvisational actor, interrupting, challenging and altering the outcomes of the exercise.

Sparring Partners encourages user(s) and audience(s) to interrogate the technological activities of artificial intelligence and machine learning, to consider the parallel emergence of vast datasets of subjective information generated by humans, and question what role these technologies play in constructing a sense of objective reality for their users. The work aims to instigate an exploration of alternative, more provocative frameworks for interaction with AI-based tools.

Fundamentally a shareable exercise, **Sparring Partners** is expressed through a semi-improvised performance guided by a script designed to provoke engagement and critique through the participants' own explorative process.

Central to the exercise is the **Personal Verification Device**, a fully functional wearable piece of speculative design based on a Bangle.js smartwatch. Though envisioned as a future standalone object, the device is powered by a nearby PC with microphone input, running a custom application which bridges an AI speech-to-text model with a customisable AI large language model tailored with system prompts instructing it to act as an assessor of factual accuracy. The application runs locally, offline; the bespoke code has been published open-source, and its dependencies are open-source AI tools such as Whisper, Ollama, and Mistral-OpenOrca. The initial development of this device allowed for it to be tested and explored and instigated the creation of **Sparring Partners** as a guided framework for its use.

As a user-performer wears the device and speaks aloud, the accuracy of their statements is evaluated by the AI, which broadcasts its assessment to the wearable device. Each evaluation flashes an alert on the device and sounds a notification reflecting the tone of the response.

The user-performer reads a short three-act script guiding them through spoken thesis statements as well as stage direction for audience participation and branching improvisations. These activities encourage participants to feed arbitrary, subjective, and/or nonsensical data to the AI, a process which may reveal the AI's judgement as flawed or subjective, and encouraging the emergence of glitch effects.

The massive amounts of data which populate the environments we navigate are increasing, not just quantitively but in a “dimensionality explosion” of complexity and incomprehensibility[1]. Algorithm-driven digital machines respond to this crisis, organising and processing data and resulting in the creation of tangible realities for their users[2]. Many platforms have been or are being developed which aim to utilise artificial intelligence to verify and categorise data automatically and passively with little effort on the part of the user, with varying degrees of success. Recently, in its own announcement video, the wearable Humane AI Pin made potentially harmful factual errors[3]. Though often attributed simply to the infancy of the technology, instances of bias and hallucination in fact point to underlying issues with the human-generated datasets that power the tools[4]. Rather than represent an objective reality of AI, the artist will find more utility in either reproducing or critiquing the limits of the dataset[5].

While errors cast doubt on the utility of AI platforms in determining accurate realities, Betti Marenko describes these *glitch events* as a subversive portrayal of “the machine caught in the act of revealing itself”, signalling an unknowable digital potential[2]. Error-prone AI interaction affords utility through glitches, which instigate creative innovation and engage conceptual critique[6].

Staged performance as an exercise emphasises an ecological understanding of AIs as non-human actors interacting within networks of human actors; their performativity affords a power to bring about new situations through what they say and do[7]. Through performance, AI interaction is framed as collaboration: a form of play or improvisation, confounding intentions. Collaboration in theatre can create “a mis-seeing, a mis-hearing, a deliberate lack of unity”[8]; thus, the emergence of glitch events which break the tangible realities created by the machine and stage a new and altered understanding.

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[1] Pasquinelli, M. (2023). *The eye of the master: A Social History of Artificial Intelligence*. Verso Books.

[2] Marenko, B. (2015). When making becomes divination: Uncertainty and contingency in computational glitch-events. *Design Studies*, 41, 110-125. https://doi.org/10.1016/j.destud.2015.08.004

[3] Kan, M. (2023, November 15). Oops: Startup Humane quietly corrects AI PiN demo video errors. *PCMag UK*. https://uk.pcmag.com/wearables/149656/oops-startup-humane-quietly-corrects-ai-pin-demo-video-errors

[4] Turk, V. (2023, October 24). How AI reduces the world to stereotypes. *Rest of World*. https://restofworld.org/2023/ai-image-stereotypes/

[5] Palmer, D., & Sluis, K. (2023, season-01). Photography after AI. *Artlink*, *43:2*, 18-27.

[6] Kane, C. L (2019). *High-Tech Trash: Glitch, Noise, and Aesthetic Failure*. University of California Press.

[7] Bleeker, M. & Rozendaal, M.C. (2021). *Dramaturgy for Devices: Theatre as Perspective on the Design of Smart Objects.* In Rozendaal, M. C., Marenko, B. & Odom, W (Eds.), *Designing Smart Objects in Everyday Life* (pp 43-55). Bloomsbury Publishing Plc eBooks. https://doi.org/10.5040/9781350160156

[8] Etchells, T. (1999). *Certain fragments: Contemporary Performance and Forced Entertainment*. Psychology Press.