

# AI in creating and archiving performance: dance, disability and robotics

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# Embodied trust in TAS: robots, dance, different bodies.

Sarah Whatley, Kate Marsh, Kathleen Hawkins, Kimberly Marsh, Welly O'Brien, Steve Benford, Patrick Brundell, Praminda Caleb-Solly, Simon Castle-Green, Rachel Garrett, Kristina Höök, Juan Martinez Avila, Virginia Portillo, Paul Tennent, Feng Zhou



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Kat Hawkins



Welly O'Brien

## Risk/tactility/consent

- ‘I’m willing to put myself in less safe places - I can trust enough my relationship with the robot. I am aware of the kinesthetic sphere of the robot by drawing on my proprioceptive awareness..... Me and Welly have different spatial awarenesses due to whether using a chair or a stick. I have a high pain threshold due to my body/prosthetic connection. I am always in ‘risk mode’” (Kat Hawkins).
- ‘.....the relationship is more human with my eyes closed, the sensorial impulse is clearer..... my ‘whole system’ commits to the contact, less ‘handy’ and closer contact means more control’ (Welly O’Brien).

# Core questions

- How does the expertise of disabled dancers raise questions about bodily contact with robots – how can that contact be generative and reimagine that bodily contact as creative, expressive and trustworthy, rather than potentially harmful. What does ‘embodied trust’ mean?
- What does consent mean in this context where there are different stakeholders, forces and expectations in place? What is acceptable touch?
- How might ‘acceptable touch’ between dancer and robot, and rooted in dancer expertise (and in the case of the dancers in the project, their expertise in human/machine relationship due to having a prosthetic limb or using some kind of assistive technology), exercise embodied trust (spatial discrimination, partnering etc) and impact on understanding more about trust in HRI?
- What are the tensions/frictions and assumptions that shape different disciplinary fields and in what ways are these generative for the research, and by extension, for archiving?







Somatic consent/mechanical sympathy and the red button



# New questions.....

- How does consent in the 'real' movement exchange translate to documenting and archiving this work, what kinds of systems are appropriate for discovering the content, for possible reuse of the content but which respects consent that is not limited to the procedural processes of 'giving' consent.
- How might AI lead or support this process and what are the implications for consent for archiving/sharing etc?
- Can AI provide new methods to address the limitations of motion capture to expand a focus on movement to incorporate/foreground touch and tactility, and what then are the implications for its documentation, archiving and reactivation?
- How might the archival process reflect an ethics of care, whereby the lived experience of disability informs human-centred AI, questioning normative models of data extraction, data capture and representation.
- What kind of archival framework will deal with concepts of responsibility and authority in complex ecosystems and develop the understanding of relational or distributed responsibility by testing it in practice?





AI, HRI and rethinking motion capture as a mode of documentation, preservation and reactivation, prioritizing inclusivity and diversity

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