

# Exploring Human-Technology Entanglements: Collaborative Design of Intimate Technologies

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## Abstract

The DiscReTe project (Disconnections and Relationships mediated through Intimate Technologies) explores how technology can support communication, boundary-setting, and interaction management for diverse communication needs. It represents a modern polymath approach—not embodied in one individual, but in a collaborative, interdisciplinary team. This diverse group includes a computer scientist, design researcher, wearable integration designer, engineer, choreographer, performer, and an individual whose personal experiences of social and communication challenges serve as the core inspiration for the project. Together, they blend their unique expertise to create an AI-enabled wearable that demonstrates the concept of intimate computing—an approach to the development of digital technologies which starts from their interwovenness with people in their daily lives.

The project leverages the distinct perspectives and skills of its members to design a wearable that supports individuals with diverse communication needs. The wearable is a conceptual prototype which uses air for subtle interpersonal communication. It aims to facilitate social interactions and enhance self expression through context-aware, nuanced interactions. Central to the team's approach is the incorporation of participatory methods and creative disciplines, such as using dance as a medium to explore and showcase technology-mediated connection and the interplay between human vulnerability and technology.

In this paper, we elaborate on the interdisciplinary, artistic-led design process that fueled the DiscReTe project. Special emphasis is placed on visuals, including photographs, to detail the design journey. These images serve not just as documentation but as a narrative tool to illustrate the convergence of technical, artistic, and human-centered practices, offering insights into the team's collaborative process.

This collaboration demonstrates the power of interdisciplinary teams in addressing complex societal challenges. By integrating engineering, design, and performing arts, the DiscReTe project goes beyond functional requirements to create technologies that foster connection, empathy, and inclusion. Grounded in a personal narrative, it highlights how intimate computing can reshape communication and relationships, offering innovative solutions to diverse human needs.

*Keywords: Transdisciplinary Design, Intimate Computing, Wearable Technology, Artistic-Led Design, Technology Mediation*