

Editorial

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This special issue seeks to provoke, challenge, and inspire more multimodal scholars to engage with and interrogate touch. Collectively the contributions situate touch as part of a multimodal and multisensorial experience at the intersection of the body, technology and environment. The contributions offer different routes to critically explore the social, sensory and affective roles of touch in a changing communicational and interactional landscape. They draw on approaches from multimodality, ethnography, material engagement theory, Human Computer Interaction, speculative research, as well as artistic and design-based research.

To situate the special issue, we give a brief overview of why touch matters and outline the extended view of touch that informs it. We comment on the challenges of researching touch and suggest the potential of multimodality as one way forward, and we point to the benefits of combining multimodality with other approaches.

Why touch matters

Touch is the first sense through which humans apprehend their environment (Fulkerson, 2014). While touch may not be much spoken about, it is central to human experience, culture, and communication. Touching provides significant information and experience of ourselves and one another, is crucial for our relationships with objects and tool use (Fulkerson, 2014), is essential to our development (Field, 2003), and is central to communication: ‘Just as we ‘do’ things with words so, too, we act through touches’ (Finnegan, 2014: 208). As contributions in this special issue highlight, touch is an important means of enacting social relations. These include greetings – shaking hands, and embracing; intimate communication – holding hands, kissing, cuddling, and stroking; and more negatively in correction – punishment, or restraining. Touch is commonly used to communicate emotions and has a role in communicating complex social messages of trust, receptivity, and affection as well as nurture, dependence, and affiliation as discussed across several of the papers and the two book reviews in this special issue - The

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Handshake: A Gripping History by [Al-Shamahi \(2021\)](#), and Out of Touch, by [Druin \(2022\)](#). Touch has been shown to be an effective means of influencing people's attitudes and creating bonds with people and places ([Price et al., 2022](#)): themes explored by Golmohammadi, Samuelsson, and Cohrt in their contributions. Interpersonal touch has been shown to improve information flow and to result in a more favourable evaluation of communication partners and to increase compliance ([Field, 2003](#)). Touch also fulfils social functions that serve to construct our experience of the world – providing people with information about objects, (e.g., texture and temperature), supporting perceptual understanding, and skilled touch; themes explored in different ways in this special issue by Samuelsson, Rees, and Malafouris and Koukouti. Indeed, knowing how to infer meaning from touch is considered the very basis of social being ([Dunbar, 1996](#)).

During the global Covid-19 pandemic, government regulations such as social distancing or lockdown measures came to regulate social life for the mainstream population in unprecedented ways (such restrictions are a regular aspect of regimes of incarceration). For many, this experience newly foregrounded the significance of interpersonal touch, primarily through its absence. Newspaper headlines, on 'affection deprivation' and 'touch hunger' abounded, and underlined what became for some a key dilemma of the pandemic; the inability to be physically close or to comfort each other through touch ([Leder Mackley and Jewitt, 2022](#)). This drew wider attention to the links between touch, loneliness, and wellbeing – a theme explored by several contributions in this special issue, as well as the dialogic character of touch and its potentials for connection, a theme central to Malafouris and Koukouti's exploration of how people make meaning and create through skilled touch interaction.

The pandemic brought the question of how touch is digitally mediated to the fore. At a time when touch screens, are arguably 'transforming our embodied experience of sociality and material culture' in a variety of contexts, including the home ([Richardson and Hjorth, 2017](#): 12), digital technologies were both celebrated for keeping people 'in touch', and dismissed for falling short of the connection associated with human, physical touch. Questions of the digital remediation of touch and their potential to stretch the possibilities of how we 'feel' the world around us and how, what, whom and when we touch are explored in contributions by Rees, Cohrt, and the Manifesto for digital social touch in crisis. The pandemic also raised questions concerning the commercial exploitation and commodification of touch, a theme playfully explored in Golmohammadi's Catalogue of Touch and brought into focus in Raithatha's reflections on sensory marketing.

An extended view of touch

We argue that the complexity of touch cannot be captured by carving people's touch experiences into discreet arenas of concern (e.g., physical, biological, perceptual, psychological, cultural, material, social or technical) or maintaining disciplinary boundaries. Thus, this special issue embraces an interdisciplinary approach to touch that is informed by an extended view of touch as a multimodal and multisensorial experience, which draws on four interconnected zones of touch to look beyond the common (psychological, psychophysical, and neuroscientific) understanding of touch as 'simply' the direct

simulation of human skin. Internal touch – or interoception – refers to internal bodily sensations like hunger, thirst, tensing muscles or racing heart, a focus that underpins Lynch’s artistic explorations in ‘Gut Feeling’. Most familiar, is *direct touch* involving skin contact with another person or thing, the focus of several contributions (e.g., Samuelsson, and Malafouris and Koukouti). *Proximal touch* refers to sensing ‘nearness’ of someone in close-proximity without the physical contact, for example, sensing someone encroaching on (or more positively joining) your personal space. Cohrt explores the potentials of such proximity through her speculative digital device, ‘footsie’ that is built around the potential for bodily dialogues of touch between remote partners. *Environmental touch* includes sensations such as the wind on your face, sand under your feet or water on your body – and the experiences conjured up by Schwartz in his poem, *Roger & Out*. From this extended perspective, touch encompasses other sensory cues (verbal, visual, proxemic) and is distributed throughout the body (through movement, pressure, temperature, pain, and proprioception) (Parisi, 2018); as well as being embedded in societal and individual lived experiences, cultures and contexts, emotions and histories, touch norms, etiquettes and practices (Jewitt et al., 2021a; Jewitt, and Leder Mackley, 2019). That is, people orchestrate semiotic and sensory/experiential resources in a specific context to create meaningful touch experiences through their selection of the most apt resources available to them; selections shaped by their different ‘interests’, touch trajectories and histories.

The challenges of researching touch

Research on touch is primarily quantitative and conducted within experimental psychology, psycho-physics and increasingly neuroscience and neuropsychology, and concerned with mechanisms and processes of perception, the senses as a universal biological-physiological matter of information-processing, physical realizations (the brain and the body systems), and the relationship between stimuli and the sensations and perceptions they affect. Such research focuses on the skin as an organ, its sensory receptors (nerve endings and corpuscles), the somatosensory area of the brain and the processes through which ‘signals’ or tactile sensations of pain, temperature, pressure are interpreted in relation to memory or emotion or how other modes (e.g. sound) impact on tactile perception (Gallace, and Spence, 2014). A range of methods are generally used to record individual quantitative measures including experiments, observation and increasingly EGC, Galvanic Skin Tests, MRIs, and neuroimaging technologies. While this work has genuine power and provides insight on touch perceptions, its methods and disciplinary approaches are designed to produce a psycho-physical, neurological, and physiological account of touch rather than a socially orientated one.

It is paradoxical, given the social significance of touch, that touch is perhaps the most neglected of the senses within socially orientated research. Linguistics and sociology have a very patchy relationship to the sensory, consisting of a few seminal studies (e.g., Goffman, 1979; Streeck, 2009) which provided stepping stones for multimodality, the sociology of the body, and sensory studies (Vannini et al., 2011). There are a few studies within anthropology of the senses that prioritize the categorisation of the senses including touch (Howes and Classen, 2014), trace the socio-cultural histories of touch (Classen,

2012), and explore the cultural variation in touch practices and rituals (Finnegan, 2014). However, ethnographic research more generally, seldom brings touch into focus – touch tends to be filtered out of qualitative descriptions (Barker and Jewitt, 2020). The same is true of sensory ethnography, where touch is rarely attended to with the exception of a few studies including touch in the context of laundry (Pink, 2005) and mobile media (Pink et al., 2016). This is perhaps unsurprising as touch exposes the limitations of observational methods, as the meanings of touch are hard (perhaps impossible) to understand when they are dislocated from the felt, sensorial or affective dimensions of touch.

Touch is also where words often fail; vocabulary for discussing touch is limited. People tend to have low awareness of their touch and find it difficult to articulate their touch experiences, and so talk-based methods (e.g., interviews) generally provide limited insight on these experiences (Obrist et al., 2013). Cultural and media studies have examined the technological shaping of touch (Cranny-Francis, 2013; Parisi, 2018) and brought touch into focus through touch metaphors and visibility. Perhaps surprisingly, multimodality has, with a few exceptions discussed in the next section, rarely touched on touch.

The potential of multimodality for touch

Multimodality (Jewitt, Bezemer, and O'Halloran, 2016) can be used to describe, categorize, and understand how material and social resources are shaped into semiotic resources or modes for touch communication and used to communicate, establish, and maintain social touch norms and conventions. To date however multimodal attention to touch has been limited – either in relation to specific touch-based mode(s) or to touch as a part of a multimodal ensemble. While touch is usually thought of in terms of perception or what might be called the sensory side of communication and interaction, touch is a mode of communication that requires multimodal attention.

A few multimodality scholars, including the editors of this special issue, have been working to describe and document the materiality of touch and how this is experienced. Understanding the physical, material, and sensory aspects of touch is, we argue, a central part of when and how touch-based resources are taken up (or excluded) and how they can shape – or are shaped by – people to become semiotic resources. We have shown for example, that the physical and material qualities of hand-held virtual controllers, and sensory expectations of touch built through prior experience are central to a sense of touch in virtual reality environments (Jewitt et al., 2021). Multimodality seeks to map the semiotic resources and affordances of touch, the qualities of touch and their experiences and associations, and the meaning potentials these represent, as a descriptive inventory of the resources and types of touch made available in a given context.

Central to multimodality is the question of whether and how touch is articulated as a mode (i.e., as set of semiotic resources with a regularity of use (i.e. a grammar) that fulfils the communication purposes of a community (Kress, 2010)). What counts as a mode is dynamic and fluid. Modes are historically and culturally shaped in response to the changing uses, resources, and needs of communities and societies (Jewitt, Bezemer, and O'Halloran, 2016). One way that multimodal scholars establish whether or not something is 'fully' a mode is to ask whether it can realize the three Hallidayan semiotic (meta)

functions, namely to deal with interpersonal, ideational and textual meanings. As argued elsewhere (Jewitt, 2017), touch passes this ‘mode test’: it is used to address someone (e.g. a handshake), this meets Halliday’s interpersonal metafunction; touch communicates something about the world (e.g. touching an object to bring it into the realm of attention, to show its temperature or texture), this meets Halliday’s ideational metafunction; and touch is coherent with signs made in the same and other modes in forming a complete semiotic entity, an interaction (e.g. a handshake accompanied by saying ‘nice to see you again’) - this meets Halliday’s (inter)textual function. Bezemer and Kress (2014) have argued that while touch is weakly developed in some communities, in some other (albeit primarily specialist) communities touch has been developed into a highly articulated mode with extensive reach including contexts of therapy (e.g. massage), the skilled touch of crafts (e.g. ceramics) to tactile hand-signing (e.g. Pro-Tactile ASL) for DeafBlind communities. Such modal unevenness and specialism are, we argue, albeit to different extents, true of all modes, including language. In an early multimodal ethnographic study of touch, Norris (2012) explores how a rider communicates with a horse primarily through the mode of touch, and in doing so she opens the category of social actor to human, animal or an object/material in interesting ways that resonate in the contemporary moment of post humanism and new materialities. Malafouris and Koukouti’s paper, *Where the touching is touched*, is a deep exploration of skilled tactile vision, materiality and touch. It draws on multi-sited and multimodal participant observation on the study of making and creative gesture that draws on cognitive and anthropological archaeology, sensory anthropology and developments in multimodality. The authors seek to show how a focus on the temporality of touch and the tactility of making can help us to disambiguate the dialogue between maker and material. They explore the multimodal kinaesthetic transaction in which “the potter becomes attentive to the expressive affordances of clay and recursively the clay becomes responsive to the creative affordances of the potter’s hand”. Through the paper they explore the links between touch and attentive engagement in the skilled context of pottery making to account for the dialogic character of creative material engagement.

Multimodal research has sought to characterise people’s use of touch for communication with attention to the cultural and social norms and power relations that shape their use. Classifying the social and cultural significances and meanings of embodied experiences of touch provided the starting point for (Cranny-Francis, 2013) exploration of touch and its articulation of ‘values, assumptions, and beliefs of individuals and of their culture and society’ (p.2). The use of touch has been investigated in a range of educational contexts (Walsh and Simpson, 2014) including touch and touch trajectories in the context of learning with iPads (Crescenzi et al., 2014; Price et al., 2015), and in this special issue, Samuelsson’s paper on touch and learning. Samuelsson focuses on a multimodal ethnographic study in a preschool in a diverse community, and examines the role of touch in the translanguaging practices of 2-year-olds. He points to two major functions for touch. Firstly, that touch creates a common experiential ground where languages can be shared and the majority language learnt. Secondly, that touch allows children to sensorially explore and learn new cultural experiences from the diverse cultural and linguistic expressions represented at the preschool. These findings indicate the pedagogical opportunities of touch, as touch affords a common ground where equitable educational

experiences can be gained, and learning of the majority language achieved, while simultaneously engaging children in the diversity of languages and cultural expressions featured in the community. More generally, the paper points to the understudied role of touch in multicultural education and calls for more research in this area.

The use of touch in digitally mediated environments and interactions has been brought into focus through a multimodal lens in the editors' work on digital touch. The term digital touch refers to the digital mediation of touch sensations or experiences by a broad range of technologies (e.g., wearables, virtual reality, tactile robotics). We use digital touch to emphasize a social orientation to touch, rather than 'haptic' or 'tactile' which reference a technological or physiological orientation. We have sought to map the features, materiality and semiotic potential of touch, and to ask under what social conditions and in what social contexts are touch-based resources shaped through their use by people to become semiotic resources or modes, as well as what people use touch to achieve and the established conventions that inform their use. For example, we have used a multimodal framework to explore what is counted as touch in virtual reality encounters (Jewitt et al., 2021; Price et al., 2021). We have also explored the use of digitally mediated touch to communicate intimacy and reassurance between friends and family, and what meanings appear to be associated with the dimensions of touch (location, duration, or pressure), and how these are used (Price et al., 2022). As society engages with and emerges from the uncertainty of touch in Covid-19 times, the *Manifesto for Digital Social Touch in Crisis*, in this special issue, signals a desire for change and a reimagining of the social and sensory aspects of touch through the design process. It offers 10 provocative statements as a resource for how haptic designers, developers and researchers might rethink and re-imagine the social and sensory aspects of touch, foregrounding these more in design.

Combining multimodality with other approaches

The search for new methods to engage with the complexity of touch has intensified multimodal interest in mobilizing both sensory and artistic research methods (Jewitt et al., 2021; Jewitt et al., 2022). Exploiting methodological synergies across these frontiers can, we argue, open multimodality up to different perspectives, generate imaginative research questions and make available a wider range of methodological tools for creative use.

We have explored the potential of dialogues between multimodality and sensory ethnography for touch in detail elsewhere (Jewitt and Leder Mackley, 2019; Jewitt et al., 2021; Barker and Jewitt, 2020). While multimodality asks if and when touch can (and cannot) be considered a representational and communicational mode, sensory ethnography attends to the situated sensorial experiences and perceptions of participants, of which the tactile may be an element, in order to both understand their experiences and activities, and how touch as an experiential category may become relevant in people's actions and reflections. Specifically, we have argued that sensory methods can help multimodal scholars to explore and better articulate the relationship between the sensorial and the modal aspects of touch communication, a relationship that we argue is key. We have suggested a dialogue between multimodal and sensory approaches enables a thick textured account of digital touch, to connect experiences of touch across individual

sensory perception to socially-culturally shaped modes and norms of touch (that come about through the repeated social labour of meaning making), bringing both the experiential and the representational world more clearly into view. Further, we argue that a better understanding and reflexive negotiation of the relationship between mode and sense may advance research on touch communication given that it is situated at the shifting intersection of the social and sensorial. Jewitt has suggested (2017) that to theorize the contingent and fluid boundaries of ‘modes of touch’ it is necessary to situate the social processes of producing and using semiotic resources and modes within the bodily, material, and the sensory possibilities of touch and its cultural histories.

Raithatha reflects on her practice as a sensory researcher in the food and drink industry for more than thirty years. She describes the measurement of touch and feel using sensory evaluation methods, training to touch, the development of shared vocabularies, and the scope, opportunities, and challenges for touch. Contributions by Lynch, Cohrt, Golmohammadi and Rees in this special issue offer radical starting points for researching touch in the form of exploratory artistic, sensory, multimodal and speculative design encounters that seek to rethink how touch and touch technologies might provide insight on or reconfigure touch, the touching body, sensory organs, and the broader communicational landscape of which touch is a part. In *Gut Feelings* in this special issue, Lynch explores ideas of interoception, that is the sense of the internal state of the body, how can we experience touch within our bodies and specifically within the gut. Her artistic research process hones in on the sensory, the material, affective, and aesthetic qualities of feelings in the body, and the association with intuition, visceral emotional reactions and decision making. She explores ways to get closer to internal touch sensations through touch experiences of other organisms which may spark our imagination to help us understand or newly feel what happens in the body. Cohrt presents ‘Project Re:Connect’ a speculative design project on mediating digital social touch between couples through footwear. It centres on paired ‘Footsie’ slippers that would allow wearers to play footsie over distance; these are used as a prop to prompt speculation and imagination on fictional future worlds, asking what digital communications might be like in a world where digital touch is as fundamental a functionality of communication devices as instant messages to real-world smartphones. Cohrt extends the playful game of ‘footsie’ that is commonplace in intimate social relationships, taking place under dinner tables or on sofas, to the realm of the digital. In doing so she takes the interpersonal connectedness and intimacy of the foot as a primary site for digitally mediated communication, and provides a new direction for multimodal design and experimentation. Through a series of artistic responses, Golmohammadi’s contribution, *The Catalogue of Touch*, offers a provocative and playful commentary on the commodification of touch and digital touch. It speaks to the commercialisation, re-packaging and copyrighting of touch experiences and products by imagining a menu of purchasable touch experiences facilitated by touch professionals in response to research themes of how people frame touch and digital touch in narratives of loneliness. While the catalogue is a research output in its own right, it also illustrates how social research themes can be rearticulated through an artistic and design lens to both communicate and further interrogate them. For Rees, the cultivation of an awareness of sensation related to the moving body is part of a dancer’s expressive, creative, and

technical development. She turns her attention to proximal touch and kinaesthetics as a route to understand more about the dancers' kinaesthetic awareness with the addition of body-worn technology and to further conversations surrounding technologically assisted creativity. She explores how the partnership of the body and technology influences the kinaesthetic awareness of the dancer/choreographer. She shows how the use of digital touch in the choreographic process enables a multisensorial creative response.

Through the mix of sensory and artistic methods that inform this special issue, speculative methods emerge in response to the methodological challenge of researching touch. Such methods offer routes to draw the body into ways of knowing, exploring, thinking and being, to support and prompt touch and tactile experiences, through participants' bodily interaction with materials and one another, and help to generate social insights and imaginations of personal remote digital touch communication. Sensory, artistic and speculative methods can be used alongside multimodal research and analysis, with people with no prior design experience to share and explore concepts in order to reveal people's concerns and hopes for touch (Jewitt et al., 2021b).

These experimental critical encounters with touch, point to the tensions realized through the blurring of the boundaries created between human and non-human (microbes and technologies) in the way that they provide tactile feedback that merge human and non-human touch. They offer multimodality provocations (or confrontations) which push the boundaries of touch and digital technologies and contribute to the work of reflecting on and theorising touch (and its design).

An invitation

The contributions in this special issue are situated in a broad multimodal vision of touch and share its concerns with materiality, the resources and qualities of touch for meaning making, touch practices, and the sociality of touch as a communicational and learning resource. From that shared starting point they offer a provocation to the field, raising questions and multiple entry points for new multimodal explorations of touch. We invite you to feel your way with us.

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