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978-0-521-85891-5 - Human-Machine Reconfigurations: Plans and Situated
Actions, 2nd Edition

Lucy Suchman

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Human–Machine Reconfigurations

This book considers how agencies are currently figured at the human–machine interface and how they might be imaginatively and materially reconfigured. Contrary to the apparent enlivening of objects promised by the sciences of the artificial, the author proposes that the rhetorics and practices of those sciences work to obscure the performative nature of both persons and things. The question then shifts from debates over the status of humanlike machines to that of how humans and machines are enacted as similar or different in practice and with what theoretical, practical, and political consequences. Drawing on recent scholarship across the social sciences, humanities, and computing, the author argues for research aimed at tracing the differences within specific sociomaterial arrangements without resorting to essentialist divides. This requires expanding our unit of analysis, while recognizing the inevitable cuts or boundaries through which technological systems are constituted.

Lucy Suchman is Professor of Anthropology of Science and Technology in the Sociology Department at Lancaster University. She is also the Co-Director of Lancaster’s Centre for Science Studies. Before her post at Lancaster University, she spent twenty years as a researcher at Xerox’s Palo Alto Research Center (PARC). Her research focused on the social and material practices that make up technical systems, which she explored through critical studies and experimental and participatory projects in new technology design. In 2002, she received the Diana Forsythe Prize for Outstanding Feminist Anthropological Research in Science, Technology and Medicine.

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LUCY SUCHMAN

Lancaster University, UK



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As well as the original text of *Plans and Situated Actions: The Problem of Human-Machine
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forms. Chapter 1 takes material from two special journal issues, *Cognitive Science* 17(1),
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Acknowledgments

Over the past two decades, I have had the extraordinary privilege of access to many research networks. The fields with which I have affiliation as a result include human–computer interaction, interface/interaction design, computer-supported cooperative work, participatory design, information studies/social informatics, critical management and organization studies, ethnomethodology and conversation analysis, feminist technoscience, anthropology of science and technology, science and technology studies, and new/digital media studies, to name only the most explicitly designated. Within these international networks, the friends and colleagues with whom I have worked, and from whom I have learned, number literally in the hundreds. In acknowledgment of this plenitude, I am resisting the temptation to attempt to create an exhaustive list that could name everyone. Knowing well the experiences of both gratification and disappointment that accompany the reading of such lists, it is my hope that a more collective word of thanks will be accepted. Although it is too easy to say that in reading this book you will find your place in it, I nonetheless hope that the artifact that you hold will speak at least partially on its own behalf. The list of references will work as well, I hope, to provide recognition – though with that said, and despite my best efforts to read and remember, I beg forgiveness in advance for the undoubtedly many sins of omission that are evident there.

There are some whose presence in this text are so central and far reaching that they need to be named. Although his position is usually reserved for the last, I start with Andrew Clement, my companion in

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heart and mind, who tempted me to move north and obtain a maple leaf card at what turned out to be just the right time. Left behind in bodies but not spirit or cyberspace are the colleagues and friends with whom I shared a decade of exciting and generative labors under the auspices of the Work Practice and Technology research area at Xerox Palo Alto Research Center. Jeanette Blomberg and Randall Trigg have been with me since the first edition of this book, and our collaboration spans the ensuing twenty years. I have learned the things discussed in this book, and much more, with them. I thank as deeply Brigitte Jordan, David Levy, and Julian Orr, the other three members of WPT with whom I shared the pleasures, privileges, trials, and puzzlements of life at PARC beginning in the 1980s, along with our honorary members and long-time visitors, Liam Bannon, Françoise Brun Cottan, Charles and Marjorie Goodwin, Finn Kensing, Cathy Marshall, Susan Newman, Elin Pedersen, and Toni Robertson. In an era of news delivered by Friday (or at least the end of the financial quarter), the opportunity to have worked in the company of these extraordinary researchers for well over a decade is a blessing, as well as a demonstration of our collective commitment to the value of the long term. Although we have now gone our multiple and somewhat separate ways, the lines of connection still resonate with the same vitality that animated our work together and that, I hope, is inscribed at least in part on the pages of this book.

The others who need to be named are my colleagues now at Lancaster University. Although the brand of “interdisciplinarity” is an increasingly popular one, scholarship at Lancaster crosses departmental boundaries in ways that provide a kind of intellectual cornucopia beyond my fondest dreams. Within the heterodox unit that is Sociology I thank all of the members of the department – staff and students – for their innovative scholarship and warm collegiality. Through the Centre for Science Studies (CSS) at Lancaster runs the far more extended network of those interested in critical studies of technoscience, including my co-director Maggie Mort and colleagues in the Institute for Health Research and CSS Chair Maureen McNeil, along with other members of the Institute for Women’s Studies and the Centre for Social and Economic Aspects of Genomics. The network runs as well through the Institute for Cultural Research; the Centre for the Study of Environmental Change; the Organization, Work and Technology unit within the Management School; Computing; and the recently formed Centre for Mobilities Research. Although the distance I have

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traveled across institutional as well as watery boundaries has been great, I have found myself immediately again in the midst of colleagues with whom work and friendship are woven richly together. I went to Lancaster with a desire to learn, and I have not for a moment been disappointed.

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Preface to the 2nd Edition

I experience a heightened sense of awareness, but that awareness is not of my playing, it *is* my playing. Just as with speech or song, the performance embodies both intentionality and feeling. But the intention is carried forward in the activity itself, it does not consist in an internal mental representation formed in advance and lined up for instrumentally assisted, bodily execution. And the feeling, likewise, is not an index of some inner, emotional state, for it inheres in my very gestures.

(Ingold 2000: 413, original emphasis)

If we want to know what words like nature and technology mean, then rather than seeking some delimited set of phenomena in the world – as though one could point to them and say “There, that’s nature!” or “that’s technology!” – we should be trying to discover what sorts of claims are being made with these words, and whether they are justified. In the history of modern thought these claims have been concerned, above all, with the ultimate supremacy of human reason.

(Ingold 2000: 312)

I bring down my finger onto the Q and turn the knob down with a whole arm twist which I continue into a whole body turn as I disengage from both knob and key. SOH brings in a low quiet sound precisely as I find myself turned to face him. We are in the valley before the finale. I turn back to the synthesiser front panel and gradually swell sound Q into the intense texture it is required to be. At maximum, I hold my right hand over the volume control and bring in my left to introduce a high frequency boost and then a modulation to the filtering. As I turn the knobs, I gradually lean towards the front panel. When the modulation is on the edge of excess, I lean back and face SOH. He looks over. I move my left hand away from the panel, leaving my right poised on the volume knob. I arch myself

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backwards a little further and then project my torso down while turning the knob anticlockwise. I continue my hand through and away from the panel. SOH has also stopped playing. As the considerable reverberation dies down, we relax together, face the audience and gently bow. We have finished.

(Bowers 2002: 32)

The image of improvised electro-acoustic music that I want to experiment with is one where these contingencies (of place, structure, technology and the rest) are not seen as problematic obstructions to an idealised performance but are topicalised in performance itself. Improvised electro-acoustic music, on this account, precisely is that form of music where those affairs are worked through publicly and in real-time. The contingency of technology-rich music making environments is the performance thematic. The whole point is to exhibit the everyday embodied means by which flesh and blood performers engage with their machines in the production of music. The point of it all does not lie elsewhere or in addition to that. It is in our abilities to work with and display a manifold of human-machine relationships that our accountability of performance should reside.

(Bowers 2002: 44)

My preface by way of an extended epigraph marks the frame of this book and introduces its themes: the irreducibility of lived practice, embodied and enacted; the value of empirical investigation over categorical debate; the displacement of reason from a position of supremacy to one among many ways of knowing in acting; the heterogeneous sociomateriality and real-time contingency of performance; and the new agencies and accountabilities effected through reconfigured relations of human and machine. That these excerpts appear as a preface reflects the contingent practicalities of the authoring process itself. Coming upon these books after having finished my own, I found them so richly consonant with its themes that they could not be left unacknowledged. They appear as an afterthought, in other words, but their position at the beginning is meant to give them pride of place. Moreover, their responsiveness each to the other, however unanticipated, sets up a resonance that seemed in turn to clarify and extend my argument in ways both familiar and new. Taken together, Ingold's painstaking anthropology of traditional and contemporary craftwork and Bower's experimental ethnomethodology of emerging future practices of improvising machines work to trace the arc of my own argument in ways that I hope will become clear in the pages that follow.